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Changing perspectives through somatically informed dance praxis reflections of one to one dance and Parkinson's practice as home performance

Brierley, Melanie

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Changing perspectives through somatically informed dance praxis: Reflections of one to one Dance and Parkinson's practice as 'Home Performance'.

By

Melanie Brierley: MA, RSME/T, BA, PGCE.

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Abstract

How does somatically informed dance practice support health in people with Parkinson's? As a process of change, how might somatically informed practice alter the perspectives of the dance artist and people living with Parkinson's? As research practitioner, what can I learn about the relationship of dance to health through the creative process of one to one Dance and Parkinson's practice? Valuing the person with Parkinson's, the creative process, and the art form of dance, my thesis examines one to one, co-creative, and somatically informed dance practice. It aims to support health in people living with Parkinson's and promote change in the perceptions of the dance artist and research participants. Through my Action research project 'Home Performance', shared dance practice creates embodied knowledge through which a new framework of one to one Dance and Parkinson's practice emerges. My approach to practice is compared with the work of three eminent Dance and Parkinson's artists from the United States and triangulated through Somatic inquiry. My methodology explores a Deleuzian informed feminist perspective which parallels Somatic theory and practice. Dance supports health in the whole person and changes perspectives in people with Parkinson's through a shifting, unfolding, bio-psycho-social process. One to one practice is performative and intra-active, with explorative dance encounters connecting partners through spatial and haptic engagement in the home environment. A corporeal exchange, and means of promoting power-sharing relationships, the creative process of one to one Dance and Parkinson's practice promotes health and alters perceptions through processes of change, connection, and flow. Empathy and understanding grow through shared dance experiences, with one to one Dance and Parkinson's practice a process for promoting self-care, and care for the 'other'.

Contents

Introduction

Introduction: The field of inquiry.

Parkinson's[1] is a common neurological condition affecting more than ten million people worldwide. In 2018, approximately 145,00 people had a Parkinson's diagnosis in the United Kingdom (UK).[2] Parkinson's is characterised by progressive degeneration of the central nervous system which affects neurons in the brain and causes widespread changes to motor function, cognition, mood and other non-motor symptoms.[3] Altered motor behaviour often presents as tremor, freezing gait, and bradykinesia, where people experience a general slowing down of movement, with all symptoms increasing falls risk. People with Parkinson's are more prone to falls and hip fractures because they have a lower bone mineral density than the general population (Critchley et al., 2015), a factor which advances morbidity and mortality rates in this population (Westheimer et al., 2015).

Parkinson's symptoms are particular to each person, with the condition concentrated in the older population, but increasingly prevalent in younger age groups. Yet, as a result of the disconnect between brain and body, all those people living with Parkinson's will experience widespread physical and cognitive change. Specifically, they will sense acute muscular rigidity and lack of flow in movement and thinking. Such systemic bodily reshaping also impacts people's feeling states and sociality, factors which may

[1] In 1817, the English doctor James Parkinson was the first to establish characteristics of Parkinson's Disease in his paper on shaking palsy. Later, Jean-Martin Charcot advanced our understanding of the condition, distinguishing rigidity from weakness and bradykinesia. He also named the disease Parkinson's in reference to his predecessor.
[2] Parkinson's Foundation (parkinson.org) and Parkinson's UK (www.parkinson's.org.uk).
[3] Other non-motor symptoms of Parkinson's are personality changes, hallucinations, or symptoms of dementia.

lead to depression, anxiety, low self-esteem, and withdrawal from social activities, with a subsequent decline in quality of life. Since there are no fixed biomarkers for Parkinson's, the rate of misdiagnosis is relatively high. Accordingly, people with Parkinson's may live with their condition for several years before diagnosis, by which time symptoms may have substantially progressed. There is currently no cure for Parkinson's, with medication, or for some Deep Brain Stimulation, the only routes for reducing disease impact. However, prescribed medicines have decreased efficacy over time, may cause significant side effects, affect people in different ways, and do not necessarily address all Parkinson's symptoms (Gage & Storey, 2004). Additional health concerns create complex medical profiles and further challenge people in their activities of daily living.

The degenerative nature of Parkinson's identifies it as a health condition with high resource use (Mc Crone et al., 2008). In countries with increasingly ageing populations, Parkinson's is likely to become more prevalent, with the financial burden escalating over time (Findley, 2007). Research from Imperial College, London (2019), indicates that the annual cost of Parkinson's is estimated to be in the region of two billion pounds.

The All-Party Parliamentary Group for Integrated Healthcare report (2017), suggests that health care costs associated with long-term and chronic conditions such as Parkinson's may be reduced by embracing non-traditional ways of treating patients. In line with the report 'Untapped resources: Accredited Registers in the Wider Workforce' (2017), and recognising the challenges of changing long-established

perspectives of health which are ‘an exquisitely sensitive indicator of our societal structures, economic conditions and political priorities’(Harkins, 2014), the All-Party Parliamentary Group for Integrated Healthcare report recommended that public health costs could be partially alleviated by promoting patient lifestyle changes. These would incorporate personal health care budgets and non-medical activities spearheaded by social-prescribing projects, including the arts on prescription.

A central aim of social prescribing is to enable doctors to connect with and evaluate the services offered by voluntary and community providers. In their recent survey (2018) of health professionals’ attitude to the role of the arts in social prescribing, Aesop[4] reported that 44% of General Practitioners (GPs) agreed that arts-based interventions could provide a cost-effective way to deliver primary care and improve health outcomes for the general public. Additionally, Dr Michael Dixon, Chair of the College of Medicine and former President of National Health Service Clinical Commissioners, asserted that Aesop’s report provided significant proof that most GPs recognise the potential of the arts to provide health benefits and healing for communities and further that the National Health Service (NHS) needs to reach beyond its conventional responses to health and view arts interventions as mainstream. In the same year, the Health Secretary Matt Hancock, announced a £45 million plan to implement social prescribing in the UK, with a particular focus on people who are at risk of social isolation, are impacted by health inequalities, or have complex needs, including people living with Parkinson’s.

[4] Aesop is a charity and social enterprise project connecting the fields of health and the arts. In 2018, Aesop produced findings from a national survey of health professionals’ attitude to the arts role in social prescribing.

Social prescribing initiatives often focus on the development of health-related arts practice in the community. Alongside projects led by individuals or groups of artists, national bodies, such as Aesop, create arts solutions based on social need. In this context, the purpose of arts is not to replace conventional therapies, rather as an adjunct, the arts support health through creativity and increasing social engagement (Bungay & Clift, 2010). For example, promoting participation in older people can have a protective effect on health, comparable to giving up smoking. Similarly, dance is highlighted as a cost-effective activity for falls prevention in an ageing population (APPGAHW, 2018). For people with Parkinson's, dance has potential to ameliorate the impact of their condition, improve their quality of life, with dance programmes helping to reduce the burden on financial resources (Findley, 2007). However, focusing solely on cost reduction, arts practices may be detrimentally affected, with the wider benefits of the arts and health disregarded.

Besides cost reduction, the complex and multimodal nature of the arts are known to be health promoting (Craig et al., 2008). The arts support people's emotional, cognitive, and physical responses through aesthetic engagement, embodied imagination, and sensory experience, with changes to people's psychological, physiological, social, and behavioural functioning causally linked to improved health outcomes (Fancourt & Finn, 2019). In their recent scoping review,[5] the World Health Organisation (WHO) identifies that aesthetic and emotional components of arts practice regulate emotion and reduce stress (Juslin, 2013), with emotional regulation intrinsic to stable mental health (Fancourt et al., 2019; Mennin & Farach, 2007). As cognitive stimulation, the

[5] **The WHO scoping review (2019) is presented by Daisy Fancourt and** Saoirse **Finn.**

arts promote learning and skills development, not only associated with a lower risk of developing dementias, but also with mental illness such as depression (Kaser et al., 2017). Participatory arts practice enhances social interaction which in turn reduces loneliness and social isolation. This has a positive effect on people's physiological responses, cognitive and motor decline, mental illness, and premature mortality (Boss et al., 2015; Steptoe et al., 2013). As physical activity, the arts reduce sedentary behaviour and act as a positive intervention to the management of chronic pain, depression, and dementia (Hamer & Stamatakis, 2014).

Since 1982, arts therapists have promoted the benefits of their praxis to health, with practitioners endorsed as allied health professionals in the National Health Service (Stephen Clift et al., 2009; Karkou & Sanderson, 2006). Often integral to supporting mental health, the arts therapies arose from modern psychology and psychotherapy, the emergence of artistic movements at the beginning of the 20th century, and initiatives within social psychiatry and education during and after the 2nd World War. Paralleling humanistic psychotherapies which use the arts for accessing unconscious material, or for understanding the client-therapist relationship, arts therapists value self-expression and creativity. Unlike counsellors or psychotherapists, arts therapists value 'doing' over 'talking', with non-verbal relationships central to practice (Karkou & Sanderson, 2006).

In hospitals and wider community health contexts, the approaches of music, art, drama, and dance therapists are diverse, with practices highlighting either psychotherapeutic or artistic aspects of their work. The issue of diversity echoes a

wider sociological trend towards accepting difference upheld by post-modern thinkers (Karkou & Sanderson, 2006; Clift et al., 2009).[6] Most relevant to my study of dance for people living with Parkinson's, Dance Movement Psychotherapy (DMP) often focuses on the areas of mental health and learning disabilities, with practice taking place in groups or through client/therapist relationships. Of the arts therapies in the UK, DMP is the most recent, with its rapid development echoing US based practice.[7] Often influenced by the work of the Marian Chace,[8] DMP's explore body action, symbolism, therapeutic movement relationships, and rhythmic activity in a client/therapist relationship (Chaiklin & Schmais, 1979), with DMP articulated as:

> [t]he psychotherapeutic use of movement and dance through which a person can engage creatively in a process to further their emotional, cognitive, physical, and social integration. It is founded on the principle that movement reflects an individual's patterns of thinking and feeling. Through acknowledging and supporting clients' movements, the therapist encourages development and integration of new adaptive movement patterns together with the emotional experiences that accompany such changes (ADMT, UK, 2016:1).

Adding further diversity to the work of Dance Movement Therapists (DMP's) and in companionship with these practitioners, independent dance artists aim to highlight the wider benefits of the arts in community health (White, 2009; Mac Naughton et al., 2005), with earlier movements such as 'the arts for all' and 'the arts for health' advocating for this practice. Promoting participation and social interaction, dance artists in community health contexts aim to engage participants in positive life

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[6] Regarding the issue of diversity, Vicky Karkou and Patricia Sanderson (2006) cite Gergen (1991), Grentz (1990), and Lyotard (1984).
[7] In 1982, the Association of Dance Movement Therapists (ADMT) was founded in the UK by Lynn Crane, Catalina Garvie, and Helen Payne (Karkou and Sanderson, 2006:17).
[8] Marian Chace (1896 -1970) was a US based dancer and dance therapist.

experiences as support to health and wellbeing (White, 2009; Houston, 2019). Nestled between the work of DMP's and dance artists, somatic dance and movement educators/therapists specifically examine the way dance promotes health and wellbeing in group or one to one contexts, with an emphasis on exploring how the process of dancing supports health and changes perspectives of the body (Williamson, 2009). Chapter Four of my inquiry examines some of the differences and similarities between somatically informed dance practice and DMP.

In DMP and dance studies, including somatically informed practices, considerable challenges are often encountered when researching and evaluating the possible benefits of dance to health, including the intuitive nature of artistic and creative practice, and the distinct individuality of their explorative environments, neither of which are easily accommodated through standardised research methods. (Clift et al., 2009; Behrends et al., 2012). In this respect, the somatic educator/dancer Lisa Dowler (2013) reminds us that as an ephemeral artform dance:

> transforms moment by moment, often communicating something beyond words, a sense, a feeling. It can be challenging to document and create evidence that conveys the true potential this artform has in shifting our perceptions of ourselves, others, and our environment.

Additionally, the empathy-fostering potential of dance as support to health is rarely examined, with more empirical evidence needed in this area (Behrends et al., 2012).

With these points in mind, I contend that there is a need for practitioners and researchers to make explicit the way dance interacts with health. This requires an

inquisitive approach to practice, with artists and researchers questioning their aims, methods, and ways of relating to dance and health initiatives. It also means uncovering how dance artists interact within different settings and communities, and to what extent they involve participants in the creation of their work.

For these reasons, I aim to research and critically engage with my dance practice with people with Parkinson's. In this thesis, I focus on one to one, co-creative, and somatically informed dance practice in the homes of people living with Parkinson's.

Introduction: Research aims, hypotheses, and directions.

My action research project 'Home Performance' seeks to understand how somatically informed, one to one, co-creative, and home-based dance changes perspectives and enhances health in people with Parkinson's. Additionally, I engage with and reflect on my approach to one to one Dance and Parkinson's practice. My purpose is to create a new framework of one to one practice which contributes to the existing knowledge and understanding of dance for people living with Parkinson's. My research aims for catalytic validity, with my inquiry identifying how my approach to Dance and Parkinson's practice emerges through investigation and how shared dance processes are transformative for research participants.

An empirical study, my project Home Performance explores people's experiences of dancing in a one to one context, with the perceptions of the dance artist and research participants forming data for the inquiry. To the best of my knowledge, there are currently no other studies researching people's experiences of one to one Dance and

Parkinson's practice in the home. Inquiries which examine individual's dancing experiences have often been explored in group settings. These have centered on the relationship of dance to quality of life (Houston and McGill, 2013, 2015), perceived enjoyment in partnered ballroom dancing (Kunkel et al., 2017), and dance in a community-based therapeutic programme (Bogner et al., 2017). Rather than exploring group practice, the one to one context enables me to investigate the unique qualities of each partnered dance with people with Parkinson's.

My project, 'Home Performance' parallels a similar practice-based investigation into dance for people with Parkinson's as documented by Christina Soriano (Soriano & Batson, 2011). Explored through Action research, Soriano aimed to develop a modern dance curriculum for her local Parkinson's community. Like Soriano, I employ Action research to explore my Dance and Parkinson's pedagogy. Unlike Soriano, who focused on group dance classes, I explore one to one somatically informed dance practice in people's homes as 'Home Performance'. As in Soriano's study, my one to one project is a relatively new initiative[9]. As preparation for my research, I worked with two people with Parkinson's in a one to one context and delivered approximately three one to one sessions with each person. This process acted as a means to form and clarify my research questions, formulate an initial approach to my one to one dance practice, and establish ethical boundaries for working in people's homes.

[9] Before the start of my research in Lancaster, I co-delivered weekly Dance and Parkinson's group practice in Kendal, Cumbria with Daphne Cushnie. I was fortunate to share practice with other British and American artists in CPD events through the Dance and Parkinson's Network. In receipt of a Lisa Ullmann Travelling Scholarship (2012), I also attended a weekend of professional training at Dance for PD® in Brooklyn, New York.

As practice-based action research, my inquiry places me at the center of my investigation into one to one Dance and Parkinson's practice. My thesis is written in the first person ('I /we did . . .'), rather than the third person ('the researcher did . . .'). I use 'I' as the author of my report because it takes the form of my personal research story. I aim for an explanatory, rather than merely a descriptive account of my Dance and Parkinson's practice, in which I give reasons and purposes for my actions through reflexive practice (McNiff and Whitehead, 2010).

Through my investigation, I critically engage with my thinking about dance as support to health in people with Parkinson's. I draw on current research into dance for people with Parkinson's and examine the practices and theories of Somatics, with this body of work focusing on the benefits of dance to health and wellbeing. Aiming to illustrate whether my dance practice is normative, I triangulate my inquiry (Hammersley, 1996) with the perceptions of three other practitioners who have experience of delivering one to one Dance and Parkinson's practice in people's homes. I compare my one to one approach with three prominent Dance and Parkinson's artists from the United States, with David Leventhal, Pamela Quinn, and John Argue interviewed about their experiences of delivering dance practice with people with Parkinson's in a one to one context.[10]

[10] In 2014-2015, I interviewed David Leventhal, Pamela Quinn, and John Argue as part of my Churchill Fellowship Award for the Arts and Older people category (This category was jointly funded by the Baring Foundation). My central objective was to research Dance and Parkinson's practice in the United States (New York and Oakland, California) so that I could develop my own practice and further the development of practice in the United Kingdom.

My empirical study explores the empathy-fostering potential of one to one Dance and Parkinson's practice as an intersubjective engagement. In my project, 'Home Performance' is not merely a vehicle for self-expression, it is a process for enhancing communication, understanding, and empathy between the dance artist and research participants as we perform our dance for each other (Hayes, 2007). Performing our research through one to one dance processes, Dance and Parkinson's practice is re-modelled and synthesised into a new framework of practice. Echoing the feminist thinker Karen Barad (2003, 2007) and the DMP researcher and artist Beatrice Allegranti (2009, 2013), the performative aspects of one to one Dance and Parkinson's practice are fundamental to the creation of knowledge production, with performativity focusing attention on the ongoing, dynamic, relational enactment of shared dance practice as an intersubjective experience.

Through co-creative dance practice, the experiences and ideas of research participants are valued equally alongside my own as research practitioner. In co-creative practice, participants with Parkinson's discover how dance supports health and changes their perspectives of living with Parkinson's through a corporeal intra-action with the dance artist and the home environment (Barad, 2003, 2007). Similar conjecture is echoed through the reflective accounts of the somatically informed dance artist and choreographer Ann Cooper Albright (1997, 2001, 2003) who views dyadic dance practices as a process of inter-corporeal exchange**,** a fluid meeting and transition of embodied understanding. Paralleling this perspective, Allegranti (2009, 2013) explores the intra-active potential of dance as a bio-psycho-social process.

Through my investigation, I critically engage with my somatically informed approach to Dance and Parkinson's practice. Specifically, I support my inquiry by drawing on the theories and practices of Somatics. The study of Somatics centers on the body and mind in movement as support to health. Key aspects of somatic theory influence my investigation, but in particular, I draw on the writings of Deane Juhan, a renowned Trager® practitioner, and the extensive knowledge of Martha Eddy, a specialist in Body-Mind Centering® and Laban Movement Analysis, who has cast some light on the potential benefits of somatically informed dance practices for the Parkinson's population.

Located in people's homes, my inquiry investigates how dance practice embeds in the 'home' environment, with research participants engaging with their environment of sensation and objects within it. My study examines the way dance influences participants' creative responses to movement and thinking when exploring their wider spatial environment and haptic engagement, with benefits to their dance and activities of daily living. The home is also viewed as a safe space, with dance sessions taking part in a 'good enough' holding environment, with this idea explored and referenced in Chapter Three.

My primary research hypothesis is that together, the dance artist and participants with Parkinson's hold the key to understanding the relationship between dance and health in a one to one context as an intersubjective encounter. My study draws on the multiple dancing experiences of participants with Parkinson's and myself as a research

practitioner in which we explore, question, and fine-tune Dance and Parkinson's practice.

A secondary research hypothesis is that dance has potential to moderate the felt sense of disconnection associated with Parkinson's, a whole-body experience which interrupts people's fluidity of movement and thought, with possible impact to their social experience and identity (Baker et al., 2007). For people with Parkinson's, dance promotes changing perceptions and supports body/mind fluidity when it shifts their physical, psychological, and social experience as a bio-psycho-social process. Here, the term 'physical' presupposes body, brain, and mind unity. 'Psychological' refers not only to cognitive functioning but also to our emotional or affective states which influence feelings, with the idea of 'social' experience denoting an individual's capacity to participate in society.

I explore dance as a process of 'creative flux' or change, with participants' sensed and felt experiences of dancing shifting their health and perceptions of living with Parkinson's. An act of connection, dance promotes integration and awareness, with research participants exploring somatically informed dance practice as a means of re-establishing and re-patterning the body/mind matrix. As a process of flow, dance shifts the felt experience of the person with Parkinson's and promotes changing perceptions. The concept of flow is discussed in relation to the works of the psychologist Mihaly Csikszentmihalyi, and the dance artist and theorist Rudolf Laban (1879-1958). The idea of flow is further examined through the dancing experiences and reflections of research participants.

Central to my qualitative and post-positivist research methodology, are the ideas of Natalie Garrett Brown (2013) who proposes a Deleuzian-informed perspective of the dancing body which merges Feminist thinking with Somatic theory and practice. Through a Deleuzian-informed perspective, the experiences of the person with Parkinson's unfold through the dance process, with the dancing person engaged in the act of becoming visible. The person with Parkinson's moves with and as the dance itself, with the aesthetic engagement of dancing supporting their personhood to emerge and be seen (Kontos, 2005). Here, the research process is an active intervention, a materialisation (Barad, 2003), which aims to explore the way dance makes a difference to people with Parkinson's.

Introduction: Research Questions.

My thesis aims to answer the following questions:

1) How does somatically informed dance practice support health in people with Parkinson's?
2) As a process of change, how might somatically informed practice alter the perspectives of the dance artist and people living with Parkinson's?
3) As research practitioner, what can I learn about the relationship of dance to health through the creative process of one to one Dance and Parkinson's practice?

Answers to these questions emerge through the research process, with my thinking about dance practice unfolding through my shared dance encounters with people with Parkinson's. Each of the following chapters represents a different stage in my

construction of knowledge, with the final chapter presenting my new framework for one to one Dance and Parkinson's practice.

Introduction: Chapters.

In Chapter One**,** I review the current literature and direction of research into dance for people with Parkinson's. Specifically, I focus on the way that 'dance' and 'health' are examined within these inquiries, often explored through quantitative and mixed research methodologies.

Studies indicate that, as a form of exercise, dance benefits people with Parkinson's. Attributed for their ameliorative effects, specific dance forms are also identified as beneficial to the Parkinson's population. Identifying the way dance supports health, research projects have explored the effect of dance on Parkinson's motor symptoms, psychosocial factors, and participant's physical and emotional experience in relation to dance. Mixed methods studies examine the multidimensional nature of dance for people with Parkinson's, illustrating how physical and psychosocial components interact to support people's health and quality of life.

Chapter Two focuses on my research methodology, as well as my Action research method through which I collect, and analyse data for my inquiry. Set within a qualitative and post-positivist framework, my methodology incorporates a Deleuzian-informed, Feminist, and Somatic perspective of the dancing body. I find relationship between the ideas of the feminist phenomenologist Elizabeth Grosz (1994, 2003, 2004), the feminist biologists Anne Fausto-Sterling (2000) and Susan Oyama (2000),

the feminist theorist Karen Barad (2003, 2007), and the embodied/corporeal feminisms underpinning the research and dance practice of Beatrice Allegranti (2011, 2013), Natalie Garrett-Brown (2007, 2013), and Ann Cooper-Albright (1997, 2013).

My Action research project Home Performance investigates the co-construction and co-creation of one to one Dance and Parkinson's practice in the home as an environment of sensation. Action research is aligned to Constructivist Theory, which like the Feminist/Somatic concepts embedded in my research methodology, upholds the ideas of multiplicity, emergence, and equality.

In Chapter Three, I contextualise my study of one to one somatically informed dance practice within the wider and diverse network of Dance and Parkinson's practice. Set against the backdrop of my experience as a dance artist, I make clear my reasons for exploring one to one dance practice with the Parkinson's community. I explore the roots of somatically informed dance practice and examine the theoretical perspectives which underpin its interpretation of the way dance supports health.

I investigate somatically informed dance practice as a process of change, with the felt sense of dance shifting physical, cognitive, and emotional experience. For people with Parkinson's, I identify how as a process of change, dance promotes self-efficacy and agency, with support to their identity.

In Chapter Four, I explore one to one Dance and Parkinson's practice as a relational process. In this context, my practice often crosses the boundaries between community dance, Somatics, and DMP. I investigate how these influences overlap in my inquiry.

I examine one to one Dance and Parkinson's practice as an intersubjective encounter and corporeal exchange occurring through dyadic dance processes. I investigate intersubjectivity through my shared dance engagement with research participants living with Parkinson's. Specifically, I examine the theories and practices embedded in my one to one practice, which often parallel the work of DMP's.

I compare my one to one practice with that of three other eminent Dance and Parkinson's practitioners, David Leventhal, Pamela Quinn, and John Argue and introduce the eleven research participants living with Parkinson's. Lastly, I acknowledge the perceptions of one to one dance practice common to all research participants.

In Chapter Five, I explore the connective potential of dance as support to health in research participants living with Parkinson's. Connective dance practice is identified as a means of re-integrating the body and mind and a process for supporting sensory awareness and felt experience. I explore a range of somatically informed dance practices with research participants: Grounded connectivity, whole body connectivity, sensory-motor feedback in connection to the environment and objects within it, the relationship between bodily-felt connection and proprioception, the importance of

exploring naval radiation and other developmental movement patterns, and the process of finding connection through an attention to breath.

Chapter Six explores one to one somatically informed dance practice as a means of supporting flow in people with Parkinson's. From the outset, I examine the concept of flow through the works of the dance artist and theorist Rudolf Laban (1879-1958) and the Hungarian psychologist Mihaly Csikszentmihalyi.

Focusing on the work of John Argue, I investigate the significance of movement visualisation in creating flow experiences for people with Parkinson's. Aligned to this perspective, I explore the role of somatically informed movement language, or verbal auditory cueing (VAC), in supporting people's sense of fluidity through imaginal movement landscapes.

Research participants also reflect on their experience of flow through dance as momentum, musical groove, and imagination. I examine the possibilities for engaging people with Parkinson's in movement through processes of flow by drawing on the Somatic practices of Body Mind Centering (BMC) and Continuum.

Chapter Seven returns to my research questions. My conclusions are based on the research data which is embedded in research methodology, research methods, and theoretical perspectives. Emerging from my co-creative sessions with people with Parkinson's, Chapter Seven identifies key research themes and discusses my new

framework of one to one Dance and Parkinson's praxis. Lastly, I discuss ways forward for my project Home Performance.

Chapter One

‘Dance’ and ‘health’: a literature review of Dance and Parkinson’s research

1.0 Introduction.

In the emerging field of Dance and Parkinson’s, the role of ‘dance’ as support to ‘health’ is often debated, with practitioners and researchers facing challenging questions. Their focus has been to identify the benefits of dance for people with Parkinson’s and explore different ways of capturing this information. Some of their concerns relate to the way that dancers understand the concept of health and how their perceptions differ from a medical perspective, since these contrasting perspectives affect the trajectory of research initiatives. Practitioners are moving towards a greater understanding of how and why specific dance genres and styles offer something unique for people with Parkinson’s. As a contributing factor, Dance and Parkinson’s researchers might aim to explore the significance of class content and structure for people with Parkinson’s. Similarly, they may question how long and how often people with Parkinson’s need to dance to improve their quality of life and explore whether dance differs from exercise in this context. Latterly, researchers are also concerned with how people with Parkinson’s experience dance and explore what dance mean to individuals in their experience of living with Parkinson’s.

In the field, and in partnership with people with Parkinson’s, dance companies and independent artists have explored a range of responses to dance practice which may benefit the physical and psychosocial experiences of people living with Parkinson’s,

with researchers aiming to provide evidence to support their ideas. Inquiring into some of their questions, the literature review examines how different perceptions of ‘dance’ and ‘health’ are contextualised in Dance and Parkinson’s research. To begin with, I look at the role of ‘dance’ in Dance and Parkinson's research, starting with the idea of dance as a form of exercise for people with Parkinson’s.

1.1 Dance and exercise.

For people with Parkinson’s, dance is often promoted as an alternative form of physical therapy, since like exercise, it improves physical fitness, social skills, and mental health. Physical activity promotes health in people with Parkinson’s because it can positively affect gait velocity, muscular strength, balance, and quality of life. It also helps to protect nerve cells from damage, degeneration, or impairment of function. (Goodwin et al., 2008; Xu et al., 2010). For several reasons, rehabilitative exercise is neuroprotective, with intensive physical activity influencing synaptic plasticity. Complex motor activities promote the greater structural adaptation of neurons, and rewarding physical activities have the potential to increase dopamine levels, thereby promoting learning or relearning of movement. This is because dopaminergic neurons are highly responsive to exercise or inactivity, with the early use of exercise potentially slowing down the progression of Parkinson’s (Goodwin et al., 2008; Fox et al., 2006). Positive adaptations are more likely to occur if exercise is performed regularly, and with variations. This approach avoids physical plateaus where the body begins to adjust to the demands of a specific exercise routine (King & Horak, 2009). Even so, low outcome expectation from exercise, lack of time to exercise, and fear of falling are perceived barriers to exercise participation in people

with Parkinson's (Ellis et al., 2013), with more research needed to understand what motivates people to take part and then continue exercise regimes (Sharp and Hewitt, 2014).

Along with Tai Chi, Yoga, Pilates, Acupuncture, Alexander Technique, the Feldenkrais method, Chiropractic work, Meditation, Music Therapy, Art Therapy, and the Bowen Technique, Parkinson's UK lists dance as a beneficial and alternative therapy for its members. This is because dance 'can help you take control of Parkinson's, boost your confidence and improve your quality of life' (www.parkinsons.org.uk). A central reason is because compared to other types of exercise, community-based dance programs have high compliance rates, with people with Parkinson's regularly returning to dance as an activity of choice (Hackney & Earhart, 2010; Hackney et al., 2007a, b; Hashimoto et al., 2015; Rio Romenets et al., 2015). As a form of physical therapy or exercise for people with Parkinson's, dance provides greater benefits than walking or cycling (Batson et al., 2016) and compared to aerobic exercise, it improves balance and quality of life (Sharp and Hewitt, 2014).

Physical self-esteem and perceived competence increase participation in regular physical activity and exercise (Duda and Tappe, 1989; Haywood and Getchell, 2009). Dance supports movement confidence because it is an enjoyable and engaging activity (Westheimer, 2008; Earhart, 2009; Hackney and Earhart, 2009a,b). As a physical activity, dance promotes social interaction, memory, motor learning, emotional perception and interaction, as well as enhancing personal expression (Kattenstroth et

al., 2010) and may reduce social isolation in the Parkinson's population (Hackney & Bennett, 2014).

When combined with music, dance enhances the auditory, visual, and sensory experience of people with Parkinson's. Absent from most forms of exercise, music serves as an external auditory cue to facilitate their movement (Cunnington et al., 1995). Combined, dance and music improve fluidity and coordination of gait patterns in people with Parkinson's (McIntosh, et al., 1997; de Dreu et al., 2012), whilst supporting challenging movements such as turning or backward walking (Earhart, 2009). Both dance and music influence brain plasticity by stimulating the sensory environment (Kattenstroth et al., 2010) and have the potential to support the immune system (Koelsch & Siebel, 2005). Music is highly incorporated with dance and has the ability to change cognitive and motor behaviour in people with Parkinson's (Ventura et al., 2016), although more research is needed to understand how combined with music, dance might support the neuromuscular system in people with Parkinson's (McGill, 2016; Eddy, 2016).

Establishing the physical benefits of dance for people with Parkinson's, research has often compared dance classes against control groups with no physical intervention. Evidence of this kind is unable to support dance as a unique experience in comparison to other types of exercise for people with Parkinson's (McNeely et al., 2015). In contrast, one comparative study between a Parkinson dance group and a Parkinson exercise group noted improved movement initiation in the former activity (Westbrook

and McKibben, 1989). In another study, Irish set dancing, rather than physiotherapy exercises, improved freezing of gait, balance, and motor disability (Volpe et al., 2013).

Although not Parkinson's specific, and based on a relatively small data set, Kathrin Rehfeld et al., (2018) identified that over a six-month period, when compared alongside conventional fitness training matched for a similar intensity, a demanding dance program led to larger volume increases in more brain areas in older people, including the cingulate cortex, insula, corpus callosum and sensorimotor cortex. Increased gray matter in these areas of the brain may decrease the degradation of working memory, executive function, cognitive control, and attention regulation in the older population, with these brain functions particularly relevant for people with Parkinson's who experience neural degeneration. The authors assert that improvements to brain functioning may be because dance simultaneously promotes a larger number of active processes than other forms of exercise including spatial orientation, movement coordination, balance, endurance, interaction, and communication. Furthermore, dancing can intensify the connectivity and interaction between the right and left cerebral hemispheres in the brain, thereby supporting physical and cognitive integration (Rehfeld et al., 2018). Such evidence may help promote the value of dance for people with Parkinson's because it helps to explain the way neural mechanisms are affected in the process of dancing.

What distinguishes the art form of dance from exercise, is the aim to purposefully express bodily movement (Stevens and McKechnie, 2005) and this idea will now be investigated by exploring the art form of dance in Dance and Parkinson's research.

1.1a Dance genres

A range of dance forms underpin Dance and Parkinson's research, with tango the most closely investigated. Often, tango is highlighted because it aims to ameliorate Parkinson's specific motor deficiencies including backward walking, turning, varying speeds, and frequent starting and stopping movements (McNeely et al., 2015). The use of ballet may also improve posture, flexibility, coordination, muscle strength and encourage participants to embed aesthetic elements in their movement such as grace and elegance (Ramsay and Riddoch, 2001; Schweiger, 2009; Houston, 2015, 2019). Contemporary dance can focus an awareness of breath, flow, and personal expression in movement, using different dance techniques and choreographies, such as release or improvisation (Heiberger et al., 2011). Ballet and contemporary dance explore narrative forms which rely on the use of gesture and imagery to support movement in people with Parkinson's, with companies such as the English National Ballet and Dance for PD®, adopting material from their current repertory. As well as attending the dance class, a central aim is to encourage people with Parkinson's to have a greater understanding and appreciation of dance as an art form, potentially widening their participation in social and cultural activities.

Dance is a means of expressing the body in action, including its parts and attitudes, shape, movement initiation, effort and flow in space and time, sequencing and phrasing, and possible group relationships and formations (Laban, 1966; Bartenieff, 1967)[11]. The 'dancer's love of the body and capacity to engage its physicality and

[11] As an alternative description of movement, Janet Adshead (1988) cites Judith Lynne Hanna (1979: Appendix 1) who establishes the following elements for describing dance: 'the body in posture, locomotion and gesture space; design in direction, level, size, focus, shape and grouping rhythm; time

imaginative expressivity is transformative and life-affirming to even those people most physically compromised (Tufnell, 2010). However, there are no investigations comparing class content across the range of Dance and Parkinson's projects, with little evidence to suggest why practitioners chose specific dance approaches when working with people with Parkinson's. Marie McNeely et al., (2015) also identify an absence of studies comparing genre-led practice. Indeed, fewer dance styles and fewer aspects of motor function are examined in studies of dance for people with Parkinson's compared to similar studies examining dance for older adults in general (McNeely et al., 2015).

Comparisons between dance genres often focus on contrasting their abilities to benefit Parkinson's motor symptoms. McNeely et al., (2015), examined the differential effects of Tango versus a Dance for PD® class. Improvements in measures of balance and mobility were made in both dance groups, with Tango rather than Dance for PD® enhancing motor sign severity and functional mobility in participants with Parkinson's. This might be because the Dance for PD® class includes periods of seated exercise, whereas more time is spent standing and stepping in the tango sessions (McNeely et al., 2015). Hackney and Earhart (2009) also compared the effects of different dance styles on movement control in people with Parkinson's who took part in Argentine Tango and American Ballroom, with a non-dancing group as a control. Execution of motor skills improved in both dance groups, but not in the control. Tango supported more improvements than Waltz/Foxtrot, although both dance forms had the potential to enhance balance and locomotion.

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and flow, tempo, duration, accent, and meter dynamics; force, quick and slow, direct flexible and flow' (Adshead, 1988).

Madeleine Hackney and Gammon Earhart (2010), compared partnered and non-partnered dance for their effects on gait and balance in Parkinson's disease. Although the non-partnered class matched improvements in the partnered activity, those participants with partners expressed more enjoyment and interest in continuing to dance. Similarly, a pilot study (Marchant et al., 2010) identified that like Tango, Contact Improvisation enhanced functional mobility and balance as a partnered dance intervention. In the same study, qualitative data captured participant experiences of dance, revealing that the majority preferred Contact improvisation to Tango, with one commenting that 'Contact improvisation far exceeded [tango] in enabling me to move freely' (Marchant et al., 2010:189).

1.2 Introduction to 'Health' in Dance and Parkinson's

To date, quantitative inquiries have dominated Dance and Parkinson's research, with a focus on the physical benefits of dance to health in the Parkinson's population. However, more recent research has highlighted the psychosocial benefits of dance for people living with Parkinson's.

As support to health, dance has been identified as a beneficial physical therapy for people with Parkinson's (Hackney et al., 2007; Hackney and Earhart, 2009a; 2009b; Houston and McGill, 2013), with potential to support health as psychological and social experience (Ashley McGill, 2016; Houston and McGill, 2013). However, studies have often emphasised the role of dance in supporting motor function in people with Parkinson's. This maybe because the progression of certain Parkinson's motor symptoms can slow down when drug treatment is combined with therapeutic activities,

such as dance (European Parkinson's Disease Association, 2012). Another viewpoint is that Dance and Parkinson's studies have sought to validate dance in the medical community, promoting it as a rehabilitative activity which can be evidenced through quantitative research methods as replicable and thus comparable processes (Houston, 2011).

I identify several key areas in current Dance and Parkinson's research which link dance with health. These are dance as support to Parkinson's motor symptoms, dance as a process for enhancing psychosocial factors, participant experience as an indicator of improved health, and the multidimensional nature of dance which affects health in the whole person, and these will now be considered.

1.2a Dance, Health and Parkinson's motor symptoms.

Focusing on the way dance benefits Parkinson's motor symptoms, quantitative studies indicate that dance improves factors such as balance (Hackney et al., 2007; Hackney and Earhart, 2009a), turning (Hulbert 2015), gait regulation (Houston & McGill 2013), and rigidity, including more fluid hand movement (Heiberger et al., 2011). Aligned to scientific research methodologies, these quantitative studies have created a valuable dialogue between the fields of dance and medicine, with potential for Dance and Parkinson's projects to attract finance from areas other than arts-based funding. However, focusing on physical symptoms alone, excludes dance as support to psychosocial experience in people with Parkinson's, and therefore fails to address the wider benefits of dance to health in this population (Westheimer et al., 2015; Westheimer 2008; McRae et al., 2018; Houston, 2016; Hackney et al., 2007a; Earhart

2009; Hackney 2009; Hackney & Earhart 2009b; Marchant et al., 2010; Soriano & Batson 2011).

McGill (2016: 48-49) also identifies that many quantitative studies rely heavily on data from clinical rating measurements which may not always capture a complete understanding of the way dance benefits people with Parkinson's. For instance, the Berg Balance Scale measures balance in quiet stance, where participants are required to balance on one leg or balance on two feet with eyes closed. However, it does not account for dynamic stability, the process of finding stability in motion, which is also an important criterion in balance assessment and falls risk for people with Parkinson's.

The benefits of altering the length, duration or intensity of dance classes is another under-researched area, with Gammon Earhart (2009) asserting that much still needs to be known about the optimal frequency of dance for people with Parkinson's. McNeely et al., (2015) cite the following as having studied dance interventions for people with Parkinson's over different durations of six months (Volpe et al., 2013), twelve months (Duncan & Earhart, 2012), and two years (Duncan & Earhart, 2014).

Examining the effects of a two-week intensive tango program for people with Parkinson's where participants danced five days per week for two weeks, with each session lasting 90 minutes, one study showed a significant 3-point improvement on the Berg Balance Scale[12] (Hackney and Earhart, 2009). However, these improvements

[12] Named after Katherine Berg, the Berg Balance Scale is a clinical test for people with Parkinson's. It measures a person's static and dynamic balance abilities.

were not as significant as those seen with a twice weekly, ten- week tango program, where the average Berg improvement was 4 points (Hackney and Earhart, 2009). Madeleine Hackney and Gammon Earhart (2009a) also identified that participants with Parkinson's who took part in Argentine tango or American smooth waltz and foxtrot lessons for 13 weeks, improved on standard clinical measures of locomotion, balance, and motor control.

The idea that health fluctuates as a result of taking part in a Dance and Parkinson's programme is observed by Heiberger et al., (2011). In their study, three out of seven participants who took part in a dance class recorded an improved quality of life from dancing for a few hours, whereas four participants experienced benefits for several days, but not as far as the next class. Westheimer et al., (2015) also found that any positive effects from the dance class, such as improved gait, lasted from one hour to one day. In a study at the English National Ballet (ENB), participants reported that they 'could do activities a little bit better up to two days after the dancing session; for example, putting on a jacket'(Houston and McGill, 2011:25). No causal link could be proved here, but it is possible that dance may have contributed to such improvements in people's activities of daily living.

1.2b Psychosocial benefits of dance to health.

Dance acts as a support to psychosocial as well as physical symptoms of Parkinson's (Houston and McGill, 2013; McGill, 2016). In particular, people with Parkinson's experience dance as an enjoyable activity (Hackney et al., 2007; Hackney and Earhart, 2010a, 2010b; Volpe et al., 2013, Rocha et al., 2017), and one which enhances mood,

apathy, depression, self-confidence and self-esteem (Westbrook and McKibben 1989; Hashimoto et al., 2015; Heiberger et al., 2011: Houston and McGill, 2013).

Dance also increases participation (Foster et al., 2011), with restricted participation reducing health-related quality of life in people with Parkinson's. (Duncan & Earhart, 2012; Sabari et al., 2015)[13]. In support of these findings, Heiberger et al., (2011) relate recreation, socializing, relationships, and helping and encouraging others, as elements of positive change in people with Parkinson's, thereby linking dance to improvements in health-related quality of life. Participation in dance class also has a positive effect on mood, motivation, and socialisation (Heiberger et al., 2015; Westheimer, 2008; Queensland Ballet, 2014). Houston and McGill's mixed methods research at the English National Ballet (2013) establishes the social value of participating in Dance and Parkinson's practice. As further evidence, Lewis et al., (2016), indicate that social dance decreases mood disturbance, with other studies illustrating how it helps to relieve feelings of depression, social isolation and loneliness (Hackney and Earhart, 2019b; Heiberger et al., 2011; Westheimer, 2008).

1.2c Participant experiences of dance and health

Focusing on the dancing person, rather than their disease symptoms, is another pathway for exploring the relationship between dance and health in people with Parkinson's (Houston, 2011, 2019; Houston & McGill, 2013). This is because each

[13] The World Health Organisation (WHO) defines quality of life as an individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns. It is a broad-ranging concept affected in a complex way by the person's physical health, psychological state, personal beliefs, social relationships, and their relationship to salient features of their environment (www.who.int).

person may offer different experiences of the dance process, allowing for more nuanced interpretations regarding the benefits of dance for people with Parkinson's (Westheimer et al., 2015). Additionally, when taken separately and out of context, body movements rarely have meaning. In this respect, quantitative Dance and Parkinson's studies, which measure participants ability to walk or balance can only partially evidence the benefits of dance for people with Parkinson's, since 'the actual meaning of body language is found through seeing the whole pattern in the context of the individual mover having a combination of personal, cultural and environmental experiences' (Hanna, 1990:117). To date, quantitative studies have often failed to adequately capture participant experience in Dance and Parkinson's dance classes (Houston**,** 2011; McGill, 2016) with many undervaluing individual thoughts and opinions (McGill et la., 2014; Houston and McGill, 2011).

Following this line of thinking, Den Oudsten et al., (2011) contend that focus group discussions and interviews, which take account of people's perceptions of dance classes, are more reliable than quantitative methodologies in health-related quality of life studies. This is because questionnaires, which often form the basis of quantitative studies, might situate participants into predetermined categories which limit individual responses to changes in quality of life (McGill, 2016). In her own study using mixed-methods research, McGill (2016) identified no statistically significant changes with regards to aspects of quality of life measured in the Dance for Parkinson's questionnaire. However, participant experiences of participating in a weekly ballet class uncover a different narrative, with qualitative data indicating that dance benefits participants' psychological, emotional, and social lives. This outcome was also

represented in subscale six of the data, which although statistically insignificant, indicated that ‘dancing participants grew more certain about maintaining a positive future life inclusive of making new friends and developing a community with other Parkinson’s people’ (McGill, 2016:168). Since the control group declined in the same subscale, McGill suggests that people with Parkinson’s exhibited increased confidence as a result of dancing, with participants believing that they could contribute to and participate more fully in everyday life. The dance group also perceived ‘less interference from their illness on important life aspects such as personal relationships and sense of independence’ and ‘were keen to stress the importance of the ballet classes as a place where they felt valued and where they could make friends’ (McGill, ibid:168).

Houston and McGill (2015), identified similar discrepancies between quantitative data and participant perceptions of dance as support to quality of life. A quantitative measurement, part 2 of the UPDRS scale, and section 2 of the Dance for Parkinson’s questionnaire demonstrated no observable changes for either the dance or control group regarding their activities of daily living. There was also no significant difference in days when participants felt the most impact from their Parkinson’s condition. However, some participant interviews revealed that dance helped specific challenges at home, indicating that participants perceived dance as a way of improving their quality of life. Westheimer et al., (2015), also identified that in interviews, participants with Parkinson’s perceived dance to support their quality of life and wellbeing. Again, these perceptions were not reflected in quantitative measurements from the same study. Houston (2011:339) concludes that quantitative data is often ‘too blunt’ to

capture outcomes shown in semi-structured interviews and not enough attention is focused on participant perceptions as an indicator that dance enhances psychosocial health in the context of living with Parkinson's.

Aiming to explore participant perceptions of Dance and Parkinson's, Houston (2015), investigates people's experiences of dance in classes at the English National Ballet. She is struck by one participant's statement that dance makes her feel 'lovely'. Houston asserts that in this reflection, Carroll reclaims her identity through the act of dancing. Carroll's engagement with the aesthetic qualities of dance help her to find distance from an often medically conceived and dehumanising perception of her condition. The value of dance in this context is to 'diminish the suffering without diminishing the person' (Coaten, 2009:7). In feeling 'lovely', dance shifts Carroll's sense of self. Positive affect reaffirms her identity or personhood (Kontos, 2005), thereby supporting Carroll's dignity in the context of living with Parkinson's.

1.2d Multidimensional aspects

In response to the limitations of quantitative inquiries which are unable to capture participant experiences of dancing with Parkinson's Houston and McGill (2013) highlight the multidimensional qualities of dance as support to health.

Predominantly, Dance and Parkinson's research establishes psychological health improvements as causal effects to enhanced physical functioning in people with Parkinson's (Houston, 2011; McGill, 2016). In their study, Cynthia McRae et al., (2018) examined the psychological benefits of dance for people with Parkinson's.

They explored the long-term effects of Dance for PD® classes on self-efficacy in participants with Parkinson's. Results indicated that improvements to physical functioning contributed to participants' feelings of self-efficacy. Self-efficacy is founded on the belief that one can succeed in specific contexts or feel confident at the thought of completing specific activities (Bandura, 1977). In another, small feasibility study, Koch et al., (2016) illustrated how well-being, self-efficacy, and aesthetic components increased for people with Parkinson's during a session of Argentine Tango.

Heiberger et al. (2011), reported similar findings, with the multidimensional benefits of dance supporting health in people with Parkinson's. Their study measured Parkinson's motor symptoms before and after the dance class,[14] and analysed these results alongside quality of life variables. The research indicated significant beneficial short-term effects for the total score of the UPDRS motor score,[15] with the strongest improvements to rigidity, as previously identified. Results of the modified version of the Westheimer questionnaire (2008) which examines the well-being of participants immediately after dance classes, showed that dance positively affects social life, health, body-feeling and mobility, and the everyday life competences of Parkinson's patients (Heiberger et al., 2011).

[14] The PD dance class in Freiberg, Germany, was modified from the weekly dance class offered by Mark Morris Dance Group, 'Dance for PD' programme, in Brooklyn, New York.
[15] The unified Parkinson's disease rating scale (UPDRS) is used to examine the longitudinal course of Parkinson's disease. The UPD rating scale is the most commonly used scale in the clinical study of Parkinson's disease.

In a pilot study, Ventura et al., (2016) evaluated the multidimensional effects of dance for people with Parkinson's, by comparing motor function, cognitive function, and emotion/quality of life variables against a no-contact control group, with all research participants having mild to moderate disease severity on the modified Hoehn and Yahr scale.[16] The largest improvements were seen in gait, cognitive switching as measured with TEA (cognitive function), and falls efficacy (emotion/QOL). In particular, it was thought that dance may help reduce the fear of falling in people with Parkinson's because strategies for changing positions safely can be taught in class. Dance may improve cognitive switching since it requires the ability to connect one movement to the next and respond in the present moment to movement changes.

McGill (2016), contends that by examining participant experiences of dancing with Parkinson's, researchers also establish interaction between psychosocial and physical variables, indicating the multidimensional qualities of dance. In her own study, McGill (2016) identified how the dancing experience enabled participants with Parkinson's to learn something new and gain knowledge about dance as an art form. Social interaction and the support of other class members was meaningful and a key to continued attendance at dance classes. Furthermore, the shared activity of dancing acted as a springboard to socialisation outside of the dance group and an incentive for exploring other, similar activities.

[16] A commonly used system, the Hoehn and Yahr scale describes how the symptoms of Parkinson's disease progress. Originally published by Melvin Yahr and Margaret Hoehn (1967, Journal of Neurology), it includes Parkinson's stages 1-5.

1.3 Summary

Like exercise, dance has often been valued as physical support to health in people with Parkinson's, with research focusing on clinical measurements which are quantifiable and more easily knowable than qualitative data (Houston, 2011). However, quantitative studies cannot capture the multidimensional nature of dance which may affect the experience of the dancer and the participatory and social engagement which results from dancing. In quantitative studies, participant experiences of dancing, including those of the dance artist, are often absent or may counter the findings gathered in quantitative research data.

Research which concentrates on exploring the benefits of specific dance genres has often explored tango, a form of partnered dance. However, few studies compare different dance genres or styles as a means of assessing which aspects of dance enhance physical skills or psychosocial variables such as mood, self-efficacy, or participation. Inquiries have not often focused on the importance of indicators such as the length, frequency, and duration of dance classes for people with Parkinson's, or how these combinations might interact. Comparisons of class content and reasons for using specific dance movements, techniques, or approaches with people with Parkinson's are largely unaccounted for.

Responding to the wider benefits of dance for people with Parkinson's, current investigations embrace more comprehensive research outcomes with mixed methodologies. These incorporate people's experiences of dancing with Parkinson's alongside quantitative elements which measure improvements to variables such as

motor skills or quality of life. Sara Houston[17] (2011) pioneered the idea that Dance and Parkinson's research might focus attention on the dancing person, rather than merely on his or her disease since people's experiences of dancing are also key to understanding why and how dance supports their lives.

[17] Dr. Sara Houston is Principal Lecturer and leading researcher in Dance and Parkinson's in the Department of Dance, University of Roehampton, United Kingdom. Until 2020, she was the Chair of People Dancing, the national support organisation for community dance in England.

Chapter Two

Methodology

2.0 Ontology and Epistemology.

My research examines my shared dancing experiences with people with Parkinson's in home-based settings. People's experiences of dancing with Parkinson's are not often studied. Investigating participant experiences of dancing, Sara Houston explores the relationship between dance and identity (2016, 2019). Stephanie Bognar et al., (2017) examine the link between dance and social participation as a means of combating isolation and improving people's quality of life. In addition, some studies also document participant perceptions of dance in relation to health and quality of life (Houston & McGill, 2015; Westheimer et al., 2015).

As with people with Parkinson's, the experience of the dance artist is rarely highlighted. Christina Soriano reflects on her insights of delivering a modern dance curriculum for her local Parkinson's community (Soriano & Batson, 2013). Sara Houston (2014) establishes some of the experiences and issues faced by individual dance artists in the UK, and Sophia Hulbert (2015) aims to explore the role of the teacher in their practical knowledge of leading ballroom and Latin American dance classes for people with Parkinson's.

Exploring people's experiences of shared dance practice, I embrace Oliver Sacks belief that as researchers we 'must come down from our position as 'objective observers,' and meet our patients face-to-face; we must meet them in a sympathetic

and imaginative encounter' (Sacks, 2012:7: footnotes 11), with my project Home Performance aiming to meet these ethical guidelines. In direct opposition to the medical notion of objectivity, which seeks to separate human values and subjectivity from a deterministically proven truth or reality, my inquiry is fixed on understanding how people with Parkinson's experience dance and how these experiences inform my one to one Dance and Parkinson's practice.

Interpreting the human experience of dancing with Parkinson's, my research sits within a qualitative and post-positivist research framework (Green & Stinson, 1999). Unlike quantitative research which aims to produce a 'singular and unchallengeable slice of knowledge' (Barone and Eisner, 2012: 53), the post-positivist nature of my inquiry encompasses the idea that research participants with Parkinson's offer different interpretations of the one to one dance process. Their individual experiences help to identify how dance supports health and changes perspectives in the context of living with Parkinson's.

Whereas quantitative studies have often focused on the physical benefits of dancing in the context of living with Parkinson's (O'Gorman & MacIntosh 2015; Weber, 2018), my qualitative inquiry aims to understand more about the individual with Parkinson's (Houston, 2011). As Houston proposes (2011), qualitative inquiries allow the researcher to describe the benefits of dance other than in physical terms, since dance and health are enmeshed with the bio-psycho-social experiences of people with Parkinson's. I aim to address the person through this broader, fluid, and multi-dimensional perspective of the dance encounter and their experience of living with

Parkinson's. In support of this perspective, McGill (2016) and Westheimer et al., (2015) indicate that measured findings from quantitative studies often differ from the experiences of participants in Dance and Parkinson's studies, with McGill concluding that quantitative research presents only one perspective and may be biasing our understanding of the benefits of dancing for the Parkinson's population.

Rather than medically examined, or externally observed, the experience of the person with Parkinson's is foregrounded, thereby releasing them from objectification. In discussions of the body and health where the person is objectified without differentiation, I am in agreement with Shusterman (2012:5) who advises that we need to avoid a 'dangerous essentialism or uniformity about our embodiment, as if we are dealing with only one single thing – "the body" – rather than doing justice to the diversity of our bodies (in terms of gender, age, and ethnicity, for example)'.

Studying several people's dancing experiences permits me to 'turn the focus back on the moving body' of people with Parkinson's 'in a way that gives an embodied voice to the subjects themselves'. It 'connects the body to the self' and sees 'the body as part of who the person is' in their experience of living with Parkinson's (Houston, 2011:343). Adding multiple perspectives, the reflections of participants with Parkinson's are explored through one to one dance encounters as person-centred dance practice.

Including the voices of people with Parkinson's, I aim for equality in the research process. I give voice to research participants alongside my perspective as dance artist,

with dance practice explored as a co-creation of our movement and ideas. As research practitioner the shared dance process enables me to notice and act on my approach to one to one dance practice. Alongside my reflexive accounts, participant perceptions add critical insight to the investigation. Their dancing experiences are acknowledged and valued in relation to my inquiry with their embodied knowledge synthesised into the evolving matrix of one to one Dance and Parkinson's praxis. As a research practitioner, my ideas about dance practice are re-modelled through our movement encounters and it is through our shared experiences that one to one practice unfolds, is constructed, and forms a new framework of one to one Dance and Parkinson's praxis.

My project is a performative inquiry (Allegranti, 2013), with the dancing experiences of the practitioner and participants with Parkinson's central to the research process. In Home Performance, we co-create our dance in the present moments of moving together, with our embodied connections forming data for the research, so that my research is process-based and 'not a thing but a doing' (Barad, 2003: 151). In this sense we perform our research as we perform our dance. As research practitioner, I gather data from, and make analysis with, the non-verbal, sensed and felt experiences of dancing bodies as a form of knowledge production.

Enriching my investigation, other practitioner voices and studies from Somatics triangulate my inquiry (Hammersley, 2008). David Leventhal, John Argue, and Pamela Quinn, are three prominent individuals from the US who share their experiences of working one to one with people with Parkinson's. I compare our

different approaches to one to one Dance and Parkinson's practice and critically engage with praxis by drawing on Somatic theories.

Like the dancer/somatic movement educator Natalie Garrett Brown and the dancer/choreographer Ann Cooper-Albright (1997, 2013), I illustrate how Somatic perspectives of the dancing body align with feminist thinking.

2.1 Feminist/Somatic perspectives.

Feminist theories underpin my research methodology, with feminist epistemology valuing diversity, complexity, non-binary, and multiple positions for understanding phenomena (Enns, 2004). Feminisms explored are the phenomenological (Grosz, 1994, 2003, 2004), biological (Fausto-Sterling, 2000; Oyama, 2000), posthuman (Braidotti, 2000; Barad, 2003; 2007), and embodied/corporeal/performative (Allegranti, 2011; 2013; Garrett-Brown, 2007; 2013). A number of elements unite feminist perspectives with Somatic theory, with the issue of equality firstly explored.

2.1a Equality.

Feminists often seek to disrupt the boundaries that mark who can be a knower and what can be known (Ellsworth, 1992). This is because feminists are concerned with equalising or reducing power imbalances in researcher-participant relationships (Huss, 2007). Beatrice Allegranti (2013) contends that investigations into shared dance practice often dispel any distinction between subject and object, body and mind, and the knower and the known. Following Judith Butler (2004: 21), she identifies with the

idea that in dyadic dance encounters ‘my body is and is not mine’. In her practice and research, she reflects the need for a:

> constant shift of intercorporeal attention, between my movement and linguistic meaning making and that of the other(s)’ and ‘an ongoing (never ending) reconfiguration of boundaries between myself and another that emerges from a material process of being in relationship and exchanging movement phrasing over time’ (Allegranti, 2013: 401).

Allegranti proposes that the dynamic interplay between moving bodies suggests a ‘distributive notion of power in human relationships.’

Like Allegranti (2013), my one to one somatically informed Dance and Parkinson’s practice echoes feminist pedagogies, with co-creative dance practice striving for equality. Through my co-creative, performative dance processes, I recognise that power balances constantly shift. Furthermore, reflexivity underpins my practice, with new thoughts generated, and my practice open to change, with my self-reflections mediated through shared dancing relationships. Through my somatically informed research process, I adopt a position of equality, with people with Parkinson’s placed at the center of my inquiry. Listening and paying attention to the specificity and uniqueness of their lives, I further my understanding of the context in which they live.

Striving for equality, somatically informed dance artists ‘consciously choose to work in a manner which does not impose knowledge or hold a fixed truth about the body or health’ (Williamson 2009:31). Through somatically informed one to one Dance and

Parkinson's practice, I aim to embed equality by working in collaboration with participants with Parkinson's, with the experiences of people with Parkinson's commensurate with the dance artist. Co-constructing and co-creating dance practice with people with Parkinson's, my inquiry aims to reduce the power divide between us (Allen, 2011). Rather than being an expert, I adopt the role of someone who is searching for knowledge. Although I have experience of delivering Dance and Parkinson's classes, the one to one encounter is a relatively new to my experience of working with the Parkinson's population. Rather than acting as an external advisor, a research aim is to enhance my understanding of dance practice through collaboration and participation with people with Parkinson's.

In relation to finding equality in research processes, the phenomenologically informed feminist Elizabeth Grosz contends that 'we need to think subjects in terms of their strategic placement within power networks; that is, in terms of what they are able to do more than in terms of who they are' (Grosz, 2003, 14). This perspective is especially relevant to my study of Dance and Parkinson's practice, since as dance artist to the research, I use non judgemental and positive methods of relating to participants with Parkinson's through dance. Without judgement, and consenting in the dance for itself, the person with Parkinson's finds freedom of expression through the act of dancing. The dance has a primary aesthetic intent which releases the person with Parkinson's from an often narrowly defined perception of their body (Houston, 2019). Their dance is valued for its own qualities rather than a degree of accomplishment (Fraleigh, 1987). In my study, the experiences of the person with Parkinson's illustrate how dance creates meaning. A person's experience of dancing creates different responses to their

life with Parkinson's, with their reflections also helping to construct one to one practice. The research process is not involved in 'reifying the experience, or reaching conclusions based on that particular experience; rather, it means allowing that experience to have an appropriate place in a rigorous process of theorizing' (Zarilli, 1999: 12).

2.1b The Body.

Rooted in Cartesian dualism, the opposition between mind and body has been correlated with an opposition between male/female, and nature/culture, in the field of feminist research. Regarded as enmeshed in her bodily existence, the female is unable to attain rationality, with women 'somehow *more* biological, *more corporeal,* and *more* natural than men' (Grosz, 1994:14). Allegranti (2013) identifies that early feminists recognised how 'woman' became synonymous with 'nature' and 'other,' and always viewed as 'object' rather than 'subject', with *her* body rendered invisible (de Beauvoir (2010). Likewise, my somatically informed research project challenges binary perspectives of the body. It values subjective and intersubjective knowledge, feelings as well as reason, the non-verbal equally with the verbal, and the synthesis of theory and practice, with the body having primacy of attention.

As with feminist thinking, the body is at the center of my somatically informed dance practice. A somatically informed dance practice negates the dualistic thinking of a body/mind divide. The body-object and body-subject do not correlate with the opposition of body and mind. Rather, the body is object when I reflect upon it, and the body-subject refers to all I am as I live my body in the present moment, and without

reflection. The person and the body are united in action through the experience of dancing in the present moment. In dancing, I create my body through my choices and actions, and in doing so, I also create myself (Fraleigh, 1996). In my investigation, and through the aesthetic experience of dance, people with Parkinson's have the potential to experience a body/mind connection or what Christine Caldwell refers to as 'bodyfulness' (Caldwell, 2014), with matter and meaning mutually articulated through a process of materialisation (Barad, 2003).

Like the DMP Beatrice Allegranti (2009, 2013), I contend that issues of sex and gender, woman and man, body and mind are both biologically and socially constructed. Allegranti (2013) cites the feminist biologist Susan Oyama (2000) who proposes a developmental systems perspective to move us beyond dualist assumptions of the body. Susan Oyama offers us an understanding of how our bodies change overtime through an evolutionary succession of lifecycles, with this process matched by our embodied developmental resources, including our genes, parents, and environment. Here, 'the life cycle of an organism is developmentally constructed, not programmed or preformed. It comes into being through interactions between the organism and its surroundings as well as interactions within the organism' (Griffiths et al., 2001: 4).

When rejecting a monist model in which the oppositions of mind and body, nature and culture, inside and outside give substance to the person, the feminist phenomenologist Elizabeth Grosz (1994) and the feminist biologist Anne Fausto-Sterling (2000) refer to

Jacques Lacan's[18] three-dimensional Möbius Strip model. A metaphor for the body, the image of the Möbius Strip disregards binary perspectives of the body. Rather, it reflects the mutable relationship between mind and body, which extends to the integration of nature/culture and the merging of the inside and outside of the body, simultaneously experienced (Grosz, 1994: bxii). For Grosz, Lacan's Möbius strip model is important, since with it, she revisions the dualistic inside/outside viewpoint. It shows 'not their fundamental identity or reducibility but the torsion of the one into the other, the passage, the vector, or uncontrollable drift of the inside into the outside and the outside into the inside' (Grosz, 1994: xii).

Although the Möbius strip model offers a way to conceptualise the 'torsion and twisting', as a three-dimensional rotation of mind and body and the inside and outside of the body, Grosz identifies the limitations of Lacan's model since it remains a closed circuit (Garrett Brown, 2007). This is because its ability to induce change is enveloped into a re-tracing and re-mapping of the same territory and therefore it is limited in its ability to represent 'modes of becoming, modes of transformations' (Grosz, 1994b, 210).

Shifting from this position, Allegranti (2013) adapts Lacan's model to include Oyama's developmental focus which supports a construction of the person through the conflation of their inside and outside experiences as a bio-psycho-social process. Here, the idea of construction, through the interaction of many different factors, is applicable to evolution as well as development, with both processes sharing striking similarities

[18] Jacques-Marie Émile Lacan (13 April 1901 – 9 September 1981) was a French psychoanalyst and psychiatrist.

(Oyama 1992). Allegranti's illustration reveals how the inside and outside of the Möbius strip model can be viewed as continuous and in-visible, with the body emerging and processing through biological and social influences as an inside/outside perspective. In agreement, Anne Fausto-Sterling confirms that 'the social produces the biological in a system of constant feedback between body and social experience' (Fausto-Sterling, 2008: 657).

A bio-psycho-social perspective of the body is echoed in Somatic theory. Rather than the body viewed as neutral, or a blank slate awaiting inscription (Allegranti, 2013), it has numerous possibilities for change. The body is simply not 'a corporeal thing that is structurally altered only by deterioration through age, accident, or illness' (Hanlon Johnson, 1983: 68). Nor are our mental or psychological realities separate to our muscles and nerves. Alternately, they form a material matrix through which we as humans encounter ourselves, other people, and the world. As their biological body, each person has a unique vantage point of the world which exists as an active source of meaning-making within a social and cultural environment (Hanlon Johnson, 1983).

The evolutionary/developmental approach is integral to the Somatic practices of Continuum and BMC. In Continuum practice, there is a recognition of the totality of our inherited experience which we embody in the process of moving. In BMC, we re-trace our developmental movement patterns as a way of re-integrating our experience and re-patterning the body. In somatically informed dance practice, and through experiential anatomy and physiology, we explore the sensory experience of fluids transitioning between the inside/outside of the cell body. Similarly, and like the cell

body, the skin is a permeable boundary, allowing shifting exchanges. Through experiential movement practice, we begin to understand the significance of the movement between our inner and outer experience, with our subjectivity identified as 'emergent and ongoing' (Garrett Brown, 2013:25). Bringing awareness to the breath, an individual can explore their inner connection whilst simultaneously being aware of their outer sensate experience.

Acknowledging Barad's idea that bodies are not separate to practice, I argue that that the shared corporeal experiences or materiality of the dance artist and research participants with Parkinson's create meaning in the research process. Likewise, I take the stance that the body is informed through bio-psycho-social experiences in a process of becoming.

2.2 Dance as a process of becoming.

Reflecting a bio-psycho-social perspective of the body, and exploring the relationship between subjectivity, corporeality, and identity, the dance scholar Natalie Garrett Brown proposes a Deleuzian influenced corporeal feminism which she argues is also integral to the theory and practice of Somatics. Informed by the philosophy of Gilles Deleuze,[19] she argues that a person can have multiple and shifting subjectivities, with their identity fluid and changeable.

Garrett-Brown contends that from a Deleuzian perspective, the body is a 'discontinuous, nontotalizable series of processes, organs, flows, energies, corporeal

[19] Gilles Deleuze (1925-1995), was an influential and prolific French philosopher of the second half of the Twentieth Century.

substances, and incorporeal events, speeds, and durations' (Grosz, 1994: 164). Against dualist perspectives of the body which fix and socially construct realities, the body-mind exists in 'a continuous interrelation with dynamic structures of power as an alternative to the humanistic notion of the stable subject' (Garrett Brown, 2013:26).

This interpretation of Deleuzian philosophy, supports a bio-psycho-social perspective of the body 'linking organs and biological processes to material objects and social practices while refusing to subordinate the body to a unity or a homogeneity of the kind provided by the body's subordination to consciousness or to biological organization' (Grosz, 1994: 165). Breaking free from the constraints of body/minded and nature/culture dualisms, the idea of 'woman' as fixed and stable is no longer observed, with her body now visible. In the process of shifting experience and in a state of becoming, she is empowered to make choices, create, and re-create her own identity through a process of agency.

Similarly, Rosi Braidotti (2000) interprets Gilles Delueze and Felix Guattari's notion of becoming 'minoritarian' (Deleuze & Guattari, 2003). The concept of becoming minoritarian converges with the idea of becoming woman, with woman identified as 'minor' in her act of becoming empowered and equal to men. Braidotti argues that in this context, identity emerges from a minority perspective, with empowerment and agency encountered from within a 'subject position' enmeshed within a continuous bio-psycho-social materiality which necessitates change.

My inquiry aligns with the thinking of Garrett-Brown, with somatically informed dance practices addressing the bio-psycho-social experience of the person, with their identity in a state of emergence through movement as a fluid and transpersonal process (Garrett Brown, 2007; Grosz, 1994, Hayes, 2013). This is because in somatically informed dance practice, subjectivity is 'an always-embodied activity, an inter-corporeal exchange between 'self', recast as shifting and multiple, and 'otherness' (Garrett Brown, 2013:23).

In somatically informed dance practice, the body moves towards and away from balance through a shifting, homeo-dynamic process. Similarly, the ebb and flow of people's dance speaks of their journey through life, with their moving bodies expressing different emotional responses to living with Parkinson's, including people's challenges and sense of freedom experienced through the act of dancing. For the person with Parkinson's, dance offers a sense of hope when managing their health condition. It offers a means of transforming their present moment experiences of Parkinson's and allows them to explore alternative responses to their activities of daily living.

Supporting this perspective, the somatically informed dance artist and choreographer Ann Cooper Albright (2001), asserts that in the process of dancing the person flows through and with the world, changing self through interactions and exchanges with other people and other materials. Similarly, the DMP Jill Hayes (2013) identifies how the one to one psychotherapeutic process is transpersonal, with dance flowing through the person as a process of shifting emotions, thoughts, and feelings through physical

expression. In one to one practice, the role of the therapist is to reach out to 'something which is hidden, lost and forgotten, buried under the encrustations of fearful frozen life' (Hayes, 2013: 25). The creative act of dancing together or performing dance together is synonymous with health since '{o}ur health is the art of living, an awakening to a more fluid and creative part of ourselves that in turn expands and changes the quality of our lives' (Tufnell, 2007: 22). The idea that the creative act of dancing supports health as a transpersonal experience and as an agent of change echoes through my one to one Dance and Parkinson's practice, as does the view that the identity of research participants with Parkinson's is shifting and multiple, with personhood supported through the fluid corporeal engagement of shared dance practice as an intersubjective experience.

Albright proposes that these exchanges between dancing partners and within dancing environments are corporeal and intersubjective because:

> {i}f the world is already inside one's body, then the separation between self and other is much less distinct. The skin is no longer the boundary between the world and myself, but rather the sensing organ that brings the world into my awareness. In this intersubjective space in which one can be penetrated by sensations both external and internal, the heretofore unquestioned separation of individual and the world (or me and you) becomes more fluid (Albright, 2003:262).

Re-framing Albright's idea of dance as a process of fluid engagement with other people and the world around us, and aligned to Oyama's developmental view which emphasises a multimodal and shifting approach to understanding the body context, the

feminist theorist Karen Barad (2003), describes how we are embedded in the world of otherness as an intra-active process. The term ‘inter’ means amongst or in the midst, with the idea of interaction necessitating pre-established bodies that then participate in action**.** In contrast, the pre-fix ‘intra’ means from within, so that an ‘intra-action’ reflects a dynamic process of development through which the body evolves. In my inquiry, Chapter Four examines the intersubjective nature of one to one Dance and Parkinson’s practice as a mutual entanglement of constituted agencies (Barad, 2003).

Chapter Two continues by examining my Action research method which is aligned to my feminist research methodology.

2.3 Introduction to Action research.

My inquiry into one to one somatically informed Dance and Parkinson’s practice is investigated through Action research. Specifically, Action research is concerned with taking actions to improve practice. Through Action research, I aim to explore my one to one Dance and Parkinson’s practice so that its potential for supporting health in people with Parkinson’s is understood and clarified. Developing ideas or theories, Action research also aims to understand how and why my dance practice improves. In my investigation, I critically analyse my thinking about practice through participant engagement, the voices of other practitioners exploring one to one practice, and theoretical perspectives from Somatics,

Rather than focusing on group Dance and Parkinson’s practice, I seek to extend my delivery of dance for people with Parkinson’s and consider different approaches to

working in the field. My purpose is to understand how one to one dance practice supports health and changes perceptions in people living with Parkinson's.
Offering a developmental perspective, my Action research project Home Performance echoes both feminist and somatic ideologies. This is because the Action research process supports the emergence of ideas and perceptions in the dance artist and research participants through body/mind dance explorations. Action research is process-based and an unfolding phenomenon, with the researcher and participants performing and becoming with the data (Barad, 2003; Allegranti, 2013). In addition, the dance artist and participants with Parkinson's are united in their intention to co-create dance practice, with equal representations fundamental to the act of creating change.

Action research echoes Constructivist and feminist theories which support the idea that knowledge unfolds rather than being fixed and pre-determined. Like feminist thinking, Constructivist theory allows for multiple perspectives, with more than the researcher's voice heard. My Action research project Home Performance illustrates how one to one Dance and Parkinson's practice is co-constructed from several viewpoints.
Underpinning Action research, Constructivist theory is now considered.

2.4 Constructivist theory

Against positivism, an epistemological viewpoint which contends that there is one reality, with objects and events existing in a universal, essentialist nature understood and experienced by all people, in the same way, the theory of Constructivism establishes that people can actively shape knowledge, through their own subjective

and intersubjective realities and in contextually specific ways (Coghlan & Brydon-Miller, 2014).

Constructivist Theory assumes that there are multiple ways of knowing and understanding the world, with knowledge emerging or becoming through investigative processes (Guba & Lincoln, 2005). Constructivist theory emphasises the intersubjective relationship between researchers and participants, with the co-construction of meaning and knowledge formed through the intra-action of different perspectives.

Constructivist theory uses co-constructive methods to gain an in-depth understanding of participant experience which incorporates negotiations of meanings or interpretations of shared experience. It also aims to represent marginalized or silent voices, thereby echoing feminist research perspectives. (Charmaz, 2000, 2017a, 2017b). In my inquiry of one to one Dance and Parkinson's practice, knowledge is constructed and unfolds through the co-creative dance process, with the dance artist and participants with Parkinson's forming their own subjective and intersubjective realities. Their intra-actions are extended to the home environment as a communal context and material site for dance exploration.

Constructivist theory allows the researcher to be reflexive and open about their ontological assumptions so that the social, cultural, and political contexts which affect people's experiences are more clearly understood. Ontological assumptions are the perceptions and approaches made by the researcher when addressing the objects or

phenomena of their study. From a Constructivist perspective, researchers must locate themselves within the investigative process, examining how their interpretations, histories and the context of their study influence their actions (Charmaz, 2006). As a research practitioner, I am positioned as an active participant in my investigation into one to one Dance and Parkinson's practice. In Chapter Three, I identify how my interpretation of dance is influenced through my historical involvement in dance for people with Parkinson's, and from my perspective as a somatically informed dance artist.

Additionally, Guba and Lincoln (2005) identify that Constructivist theories and methodologies highlight the relationships between researchers and participants, as well as how these relationships relate to the knowledge generated during and after an investigation. In this respect, Chapters Four to Six explore the significance of dance for people with Parkinson's.

2.5 Method: Action research.

Action research is characterised by 'the active and deliberate self-involvement of the researcher in the context of his/her investigation' (McKay & Marshall, 2001:49). Seen as a way of scrutinizing professional experience, Action research is viewed as an extension to professional practice, not an addition to it (Rome, 2007). The aim of Action research is to 'bring about practical improvement, innovation, change or development of social practice and the practitioners' better understanding of their practice' (Zuber-Skerritt, 1996:83). The Action researcher aims 'to make public the

story of their research in a way that is open to others to evaluate its validity' (Whitehead, 2018:76).

Aligned to Constructivist theory, Action research generates knowledge about the interrelationships between people in specific contexts rather than seeking a universal truth. Action research is uniquely suited to researching and supporting change, so that it aligns with post-humanist understandings.

The purpose of action research is to generate new knowledge as a means of creating new theories. Knowledge is formed by investigating the relationship of practice to theory and action to reflection (Given, 2008). Action research uses an iterative framework in which the investigator may observe, reflect, act, evaluate, and modify their practice (Lewin, 1948). This process is generally known as action-reflection or the action-reflection cycle (Schön, 1983; McNiff & Whitehead, 2011). The cycle of action and reflection is ongoing because 'as soon as we reach a provisional point where we feel things are satisfactory, that point itself raises new questions and it is time to begin again' (McNiff and Whitehead, 2011). In the research, my thinking balances action with reflection, with action often guided by theoretical concepts or theories form Somatics which emerge through my reflexive practice. Demonstrating how theory and practice inform each other, paying attention to both action and research cycles, and maintaining critical reflection are important for moving towards a synthesis between action and research. One to one Dance and Parkinson's practice develops through reflexive inquiry as a 'means of constructing a bridge between research and practice' (Etherington 2000; Heron 1996; Reason 1994). Merging

practice with theory, I aim to build praxis as new knowledge in the developing field of Dance and Parkinson's.

McNiff and Whitehead (2011), identify two different approaches to Action research. For Interpretive Action researchers, such as John Elliott, Stephen Kemmis, and Clem Adelman, investigations require an external researcher to watch and report on what other practitioners are doing. Initiated by McNiff and Whitehead (2006), self-study Action research or Living Theory Action research, is a method which enables practitioners to offer their own explanations for what they are doing, with my thesis aligned to this perspective. As a research practitioner, I am embedded in the research and aim to more fully understand how my one to one dance practice might support health and changing perspectives in people with Parkinson's.

Action research is value-laden, relational, and morally committed (McNiff and Whitehead, 2011). In seeking equality between the researcher and the research participants, my investigation is value laden. It incorporates participatory, collective, and democratic collaboration and these ways is aligned with feminist research perspectives (Lewin, 1948; Whitehead 1976; Watts, 1985; Soriano and Batson, 2015).

Action research is relational and focused on developing empathy (Dadds, 2008) with communication and understanding emerging through the embodied encounters between the dance artist and people with Parkinson's. Empathy and enhanced learning experiences have the potential to emerge through the inter-corporeal exchanges of the one to one dance process.

Action research is morally committed, with investigations based on the premise that people can and should, be active in decisions about how they live (McNiff and Whitehead, 2011). Participant agency is central to my one to one dance and Parkinson's inquiry. As with Soriano's study, which explores the construction of a modern dance class for people with Parkinson's (2013), my Action research method highlights the importance of individual creativity in contributing to the improvement of practice and the formation of knowledge which may be constrained by the social contexts of an individual's life and work, such as those people living with Parkinson's (Whitehead, 2018). Aligned to post-humanist and feminist perspectives, agency is tied up with the intersubjective dance encounter and achieved in relationship (Barad 2003, 2007).

In Home Performance, research participants have agency in the decision-making process. People with Parkinson's select the days and times of our sessions and the space in which we explore practice in their home. At the beginning and ends of sessions, they make choices about the dance they wish to explore, and whether they wish to sit, stand, or move on the floor during the one to one experience. Sessions are person-centred and allow for several different perspectives or voices to enter the research.

The following passage describes how Barry, a research participant, has agency in directing our one to one session and illustrates how as the dance artist, I learn to negotiate practice with people with Parkinson's.

> Barry tended to get distracted during our initial one to one sessions. Fairly quickly, I discovered that this was because he was not enjoying my music selected for our shared dance activity. Also, Barry was beginning to show signs of memory loss and confusion. Responding to Barry in the present moment, I asked him which music he would prefer to listen to and dance with. Barry indicated that he enjoyed listening to classical tracks by André Rieu and proceeded to show me his recorded programmes on the television in another room to where we had been working. For the following two sessions, we worked in the lounge instead of the conservatory, with our sessions directed by the music which Barry selected from his recordings. The waltz music supported swinging and flowing movements and enabled Barry to shift his weight from side to side. Barry's wife also joined us for one of these sessions. At other times, she went out to go bowling, an activity she enjoyed but would have been unable to do if I had not been visiting Barry. After getting to know Barry, our one to one sessions became focused on dances which included imagery associated with football. This was because Barry had been a football commentator on local radio. I bought a soft, material football, which we used to play 'throw and catch' at the beginning of our sessions, an activity which then developed into dance improvisation.

A second example illustrates how one to one Dance and Parkinson's practice is morally committed:

> A female participant Angela was sometimes concerned that she was unable to give me the information I needed for my research. Therefore, I spent more time explaining the purpose of the research, and also acknowledging the importance of her individual contribution. Angela hadn't fully realised that her contribution was also key to the Action research process. After our conversation, Angela shared many of her experiences of living with Parkinson's, including the fact that she was experiencing very bad hallucinations at night-time. I was able to feed this information back to the Lancaster Parkinson's UK group so that Angela and her family could get more support from the Parkinson's nurses.

Another example reveals how one to one Dance and Parkinson's practice supports empathy between the research participant and myself as the dance artist as I visit Mick at his home in Morecambe. Like Angela (D), Mick lived with Multiple System

Atrophy, a severe and progressive version of Parkinson's in which people experience all symptoms simultaneously, with their life expectancy greatly reduced:

> Mick opened the front door. He noticed that there was mail on the floor, and so slowly he bent down to pick it up. I had offered to do so, but Mick wanted to do the activity himself. Mick proceeded to walk along the hallway, and I followed. As Mick entered his lounge, he decided to reach out to a small coffee table on the left-hand side of the room, with the intention of placing the mail on the table. As he reached out, Mick began to fall, knocking the table over into the settee and sliding in the direction of this piece of furniture. Thankfully, Mick slid diagonally along the wall next to the table and settee. Noticing this all happen at that moment, I responded by moving right in next to him, to prevent him from sliding any further. We stayed in this position for a short while, until gradually, I was able to shift my weight so that Mick became more upright once again, with his back leaning on the wall. It was our first experience of doing Contact Improvisation together. Both now facing forwards and leaning against each other, I suggested that we breathe. We noticed how our feet connected us to the floor, we softened our knees to release our weight into the ground, which allowed us to feel more stable. Gradually, we used our hands to push us into a standing position away from the wall. This is how our one to one session began. It was our third. Later, after sharing some gentle dance movements in a seated position, Mick was able to come to a standing position again with my support. We did this to ensure that Mick felt confident about standing again after I had left. Like Angela (D), Mick shared that he fell frequently in his home. Mick also shared that he practiced some of the movements we did in the one to one sessions at nighttime, before retiring to bed. They helped him to relax and go to sleep.

2.6 Reflections on Action research.

Through my own reflexive practice as a dance artist to the research, I was able to document the changing perspectives which emerged in my inquiry. Sometimes, the 'action' part of the Action research process uncovered unexpected findings, which together with theoretical considerations, informed my one to one dance practice. The following reflexive account illustrates this idea:

> Reducing the possibility for verbal reflections to move our conversations away from research topics, voice-recorded interviews aimed to capture our shared dancing experiences as they happened in the present moment, or shortly after movement occurred. In general, if interviews began to drift off topic, I either let the conversation come to a natural end or found a way to redirect our reflections towards the dance encounter. In some sessions, I experimented with the interview process. Adopting a new approach, I attempted to record sessions as they were happening. However, many of our words were lost, due to the fact that the music was being played simultaneously, with my recording equipment unable to separate the two aspects. On the other hand, the process was interesting, because it enabled me to capture some of the words that I used to describe and facilitate movement during one to one session. In this respect, I found that at the beginning of sessions, I led dance material through detailed language which captured the felt sense of my own movement as a way of supporting movement in my partner with Parkinson's. My words came from an embodied place in response to participants with Parkinson's and I adopted this different way of using movement language as a fundamental part of my approach to one to one Dance and Parkinson's practice. I had developed this language skill during my training and teaching as a somatic dance and movement educator, and specifically through the Authentic Movement process which uses dialogical movement language in a Mover and Witness relationship. Here, somatically informed dance practice supported my one to one exploration.

The next example illustrates how the Action research process is developed through reflexive practice, where theoretical concepts help to support new knowledge. In an exchange with Adrian, a research participant who experienced significant dystonia as a result of his Parkinson's condition, Adrian misunderstands my original research question. However, in doing so, Adrian reveals a different insight which is also important evidence for the study, with the interview extract taken from our conversation towards the beginning of a one to one session.

Individually, we had been exploring the connection between our hands, a movement activity which aimed to focus on a body-mind connection. The idea for our hand dance was based on a comment made by John Argue in a group session at his class in

Oakland, California (2015). In class, John reflected that it was interesting how our hands knew exactly where each other were. With Adrian, I explored the use of hand dances, noticing how our hands followed each other without needing to consciously control movement. Often experiencing acute dystonia on one side of his body, this was an important concept for Adrian to grasp, because the hand dance enabled Adrian to feel calm, and find an easeful connection between each side of his body. Adrian succeeded with the hand dance without having to continuously think about his movement. Music created for Tai Chi sessions also supported this activity. After our shared movement exploration, I was interested to know whether Adrian thought that a similar connection could be found between his feet. However, Adrian misunderstood my question. He thought that I had meant him to think about whether there could be a similar connection between his feet and hands. This led to a thought-provoking conversation about Adrian's engagement with the concept of body-mind connection since he recognised the interdependence of mind and body and the fact that in some instances, and despite his Parkinson's condition, he could hold a sense of integration or unity in his lived body experience:

> Mel: Out of interest, what would be the connection between your feet? Do you have a sense that your feet also know where each other are as well?
> Adrian: Yes, they do. You put your hand out, and your foot knows where your hand is.
> Mel: Oh yes, between the foot and the hand.
> Adrian: And sometimes if you wanted to touch with that one, you could do it. With that one, (indicating the Parkinson's affected side), I would struggle.
> Mel: Do you have a different sense of one side of your body and then the other?
> Adrian: Everything's connected. Everything to everything else, and it all meets up here (Pointing to his head).
> Mel: Yes, in the old head, the old brain!
> Adrian: Yes, that scrambles it up really good.

2.7 Introduction to research design.

The following sections set out the design of my Action research. The research design aims to include all voices and to capture the different viewpoints of practitioners involved in the inquiry. It includes the perspectives of different practitioners and eleven research participants. My research methods indicate how data for the inquiry was gathered from participant and practitioner in voice recorded interviews, with these transcriptions adding evidencing my reflexive accounts of one to one Dance and Parkinson's practice.

2.8a Purposive sampling.

As qualitative inquiry, my research uses purposive sampling. This means that my study is aimed at a specific group of people who will allow me to answer my research questions. In my project Home Performance, eleven participants with Parkinson's self-selected for the research into one to one Dance and Parkinson's practice.

I recognise that the experiences of the eleven research participants are representative of this group of people and may not necessarily be characteristic of all people with Parkinson's. However, the sixty-six one to one sessions offer significant insights into dance as a support to health in people with Parkinson's, which inform one to one dance practice in the research.

My reflexive practice also informs the research outcomes. Through critical engagement with my one to one Dance and Parkinson's practice, I generate knowledge and add theoretical insights as a means of constructing a new framework of praxis.

2.8b Research progression.

In consecutive weeks, each research participant took part in six one to one Dance and Parkinson's sessions. A total of sixty-six sessions formed data for the research. Mostly, participants chose the same day and time for sessions, so that people began to expect my arrival. Sometimes participants lived alone or were by themselves on the day of the session. Some family members worked, and others whilst initially present in sessions chose to spend time engaged in other activities within the home or leave the house. Many took the opportunity to do important jobs, or do something for themselves, requiring a trip out of the home which would otherwise have been difficult to achieve. This is because people with Parkinson's often find themselves disabled due to difficulty in walking long distances, or when accessing certain services and venues in wheelchairs, walkers, or buggies. On occasion, family members joined our dance experience. Peggy's niece attended one session, Barry's wife took part a few times, Adrian's partner liked to watch some of our movements, and Angela (D) enjoyed showing her partner our small dances at the end of sessions. One part of Connie's session was captured on Skype with her son in Ohio, United States. This enabled family members to share an enjoyable activity together.

All participants except Peggy attended my bi-monthly Dance and Parkinson's class at St. John's Hospice, Lancaster[20] which is supported by the Lancaster group of Parkinson's UK. Here, the average number of participants is fourteen, and so, the research group represents almost half the class members from this group. Other class

[20] Peggy used to attend a Dance and Parkinson's class in Kendal. However, after falling and breaking her hip, Peggy was not confident enough to continue attending this class. Subsequently, she contacted me directly for one to one sessions.

participants were interested in the research but felt unable to take on board extra activities in their daily lives. At different points, Bob, Angela (D), and Lynne also attended my weekly class ‘Keep Calm and Carry On Moving’ at the Neurodropin, Lancaster which also included participants with a range of neurological conditions, such as Stroke, Multiple Sclerosis, and Muscular Dystrophy.

In the research, both Mick and Angela (D) and Barry had difficulties communicating verbally because of their Parkinson’s condition. Although there is little voice-recorded data, with more observation and reflection of our shared dance experience, these participants are still included in the study. Their contributions represent co-creative practice because we were able to develop practice together, with participants still maintaining agency through the intersubjective encounter of the research process. Observations were made during all sessions as a means of ensuring parity and equality in the research process.

The investigation progressed in stages, with participants entering the research process at different points. Through this process, I was able to develop ideas about practice in response to reflections from previous participants by spending long periods of time reflecting on the one to one dance process.

Below, Table 1 indicates the involvement of research participants. It identifies the periods when I visited the USA to research Dance and Parkinson’s practice as the fulfillment of my Churchill Travelling Fellowship (2014-2015). It also records participant deaths and the fact that Connie moved back to live with family members in

the USA after her contribution to the study[21]. As previously indicated, the participants Pam and Steve were not included in the study, because they needed to deselect from the research due to ill-health.

Table 1: Timescale and progress of one to one Dance and Parkinson's sessions.

2013	**2014**	**2015**	**2016**	**2017- 2019 (after the research period)**
Lynne and Peggy.	Barry, Connie, Mick.	Angela (B), Robert (Bob).	Anne, Angela (D), Bill, Adrian.	1:1's with Bob on a monthly basis.
	Pam (Had 2 sessions and then de-selected from the research because she became ill and moved out of the area).	Peggy (died) Mick (died)	Continued 1:1's on an intermittent basis with Lynne & Robert (Bob).	Lynne 1:1's intermittently.
	Steve (Took part in 2 sessions and then de-selected from the research because of illness and later died).	Connie returned to live in Ohio in the US to live with family members.		Started working with other participants with Parkinson's.
	Continued visiting Lynne & Peggy I researched dance and Parkinson's in New York	Continued 1:1's with Lynne. I researched Dance and Parkinson's in Oakland, California	Barry died.	Angela (D) died

[21] Connie and I are still in contact via social media and email.

2.8c Interviews.

Research interviews can be structured, semi-structured, or unstructured (Robson, 2011). My inquiry uses unstructured interviews which allow for informal or conversational dialogue with research participants and key practitioners as they reflect on the one to one dance process. Unstructured, or open-ended interviews, form data for the investigation into one to one Dance and Parkinson's practice. Participant reflections of dancing with Parkinson's and practitioner reflections of leading one to one practice were voice-recorded, transcribed, and later analysed as research data.

My interviews with research participants and the practitioners Leventhal, Quinn, Argue, and Eddy adopt a narrative methodology, as explored by American sociologist Catherine Kohler Reissman and Lee Quinney (2004:709). Here, the interviewer and interviewee 'engage in an evolving conversation' as 'two active participants who jointly produce meaning'. Reissman explores narrative theory in relation to social sciences and the field of humanities. My interviews with research participants captured our co-creative dance process and indicated how new ideas about practice emerge in our intersubjective encounters. With practitioners, I used the interviews as an opportunity to discuss my research and question my thinking with a range of highly skilled and experienced dance artists, as well as a means of understanding their personal approach to Dance and Parkinson's practice. The information gathered from each practitioner interviewee has been very rich, both from their individual perspectives and as a way of mapping different approaches used in the UK and the US. Extracts from the interviews are quoted throughout the text.

In unstructured interviews, participants can go off topic or try to find answers which they perceive as being important for the researcher (Robson, 2011), with this problem highlighted by the research participant Angela (B) identified earlier in this chapter. Anssi Perakyla and Johanna Ruussuvuori (2011), assert that it is important to clarify that no part of the interview remains untouched by the researcher, with the researcher needing to be reflexive about examining how his/her own values and social position influence interviews and the data analysis.

Sometimes, I needed to prompt research participants about their felt experiences of dancing. To begin with, most people found it difficult to notice or talk about what they noticed as they were moving. This is perhaps because people with Parkinson's often need to consciously control movement, a process which may distract from their ability to self-perceive. Questioning research participants became easier over time as dancing relationships developed, illustrating more convergence between researcher participants and myself as the dance artist in the investigation.

In the research, video recordings might have been added as supportive evidence for the research process. However, due to the intimate nature of the study, it did not seem appropriate to video one to one sessions, since at the start of the research process, some participants found recording their voice a little uncomfortable. It was also challenging to set up video recording equipment in the home environment because the distance between the camera and dancers was often too small to capture our dancing

experience. This specific problem was highlighted when Jess Turton[22] made a film about Home Performance in Bob's house. Jess needed to stand in the hallway, or up against walls to create the right angles for filming.

2.8d Analysis.

In my research, participant reflections of dancing were recorded, transcribed, and then analysed with the purpose of identifying similar themes, ideas, or directions in participant responses. As a research practitioner, I aimed to represent participant reflections as closely as possible. I examined the research transcriptions several times and re-played our voice recordings. In this process, I also included the research interviews with practitioners from the United States. I aimed to construct meaning from my research data as a way of more fully understanding how and why dance might support health in research participants.

2.8e Ethics.

Ethical clearance for my research was gained from the University of Roehampton Ethics Committee (2012-2013). I also obtained an Enhanced DBS certificate through the University of Roehampton which enabled me to work co-creatively in people's homes. As a dance artist, I was insured through my professional membership at People Dancing and I was also registered with ISMETA (International Somatic Movement Education and Therapy Association) as a somatic dance and movement educator. As a

[22] Jess Turton was a final year BA joint Hons student at Lancaster University, studying Theatre, Dance, and Art. Her dissertation was on Dance and Parkinson's and jess had been work shadowing me for a year when we decided to make the film.

research practitioner, I needed to have previous knowledge of Dance and Parkinson's practice, together with experience of delivering co-creative dance practice.

Participants self-selected for the study and it was made clear that individuals could withdraw from the research at any time. Out of thirteen participants, only two deselected due to illness, with one of these participants also moving out of the area. I checked with participants to see whether they wished me to reveal their identities, with all participants deciding to be identified by their first names in my inquiry. This allows research participants to celebrate their contributions and to acknowledge their participation.

The investigation has a moral imperative to reflect the experiences of all those involved in the research and I have explained how my research methodology supports equality between myself and research participants in the investigation. Prior to the research, I made it clear to those people involved in my study that in the co-creative dance process, they could make contributions to the development of one to one Dance and Parkinson's practice, with the aim of supporting other people living with Parkinson's through our joint findings. I explained that I was studying my own practice in relation to our co-constructed ideas in the investigation. I also made it clear that I would not reveal anything of a personal or compromising nature, with our transcriptions as paper data, kept in a secure place and electronic data stored on a password-protected computer. As is often the case in co-creative practice, participants are likely to disclose personal information to the practitioner. In the research, I was often involved in discussions about the full range of physical and cognitive symptoms

caused by Parkinson's. These included 'hidden' symptoms such as urinary dysfunction.

Research participants needed to feel safe and supported. This meant having confidence and trust in the practitioner, as well as familiarity with their working methods. Even though I was familiar to people with Parkinson's in my study, because they attended my Dance and Parkinson's class, prior to the study, I aimed to acquaint myself with research participants. I arranged a preliminary home visit in which I verbally explained the research procedure and supported this information through documentation which explained the aims of the study. These documents were a research briefing paper (see Appendix 4) and once enrolled, a consent form (see Appendix 2). Initial visits also included generic risk assessments, which identified the possibility of slips, trips, and falls in the home and outlined my research timetable to inform family members and the university about my planned visits to the homes of research participants.

So that research participants felt informed, progress reports have been relayed during one to one discussion in people's homes, and through interim presentations with the group at the Lancaster Parkinson's UK branch. At the end of the investigation, participants and their families will receive a summative report identifying the main findings of the study and a letter thanking them for their part in the investigation.

In the research, I also understood that if there were any situations which implied that a participant was at risk, then I needed to pass on this information to the correct authorities. Working in people's homes, the dance artist may come across moments

when people with Parkinson's, or family members become upset due to experiencing, or living with someone who is experiencing, life with Parkinson's. Clear boundaries needed to be identified at the beginning of the relationship, because as dance artist I am not a qualified therapist. I needed to establish other points of contact for any situations I felt unable to manage. However, over the research period, there were no occasions when this was necessary, except when participants experienced problems with medication or other health issues. Here, I supported them to seek advice and assistance from doctors, Parkinson's nurses and specialists, or Parkinson's UK local and regional officers, who also frequently attend the Lancaster Parkinson's UK branch.

Another difficult aspect of the research is that participant death features when working with a mainly ageing population. Indeed, over the study period, four research participants died. In this event, family members of the deceased were supported by the Lancaster Parkinson's UK Group. Because of this, they continue to attend meetings after the death of a loved one. Some like to volunteer and fundraise or support other families in the group. As dance artist to the research, I needed to access supervision from my peer network because the depth of relationship in co-creative practice means that the dance artist can also suffer loss after a participant's death. Unfortunately, this was difficult to come by, particularly because my friend and colleague who was trained in supervision of this kind also died during this time. However, I have felt supported through my own movement practice and with members of the Lancaster Parkinson's UK group, since we always acknowledge the death of a group member at the beginning of class and dedicate the session to them.

Chapters Three to Six illustrate my exploration of one to one somatically informed Dance and Parkinson's practice. These chapters reflect my experience as a research practitioner, the viewpoints of research participants, and the perspectives of other Dance and Parkinson's specialists. The chapters also indicate how my thinking about practice develops during the research process, with my ideas informed by research participants, through the literature from the developing field of Dance and Parkinson's research, and through my critical engagement with somatic theory and practice.

Chapter Three

Somatically informed Dance and Parkinson's practice.

3.0 Introduction.

In a group or one to one context, a somatically informed perspective of Dance and Parkinson's practice is rarely examined. Locating an entry point for somatically informed dance for people with Parkinson's, I begin by reviewing the current direction of Dance and Parkinson's practice in the United Kingdom and the United States. Within this section, I reflect on some of the issues surrounding diversity.

Since my interpretation of dance for people with Parkinson's influences my action research foci and outcomes, I make clear the pathway which led to my involvement in dance for people with Parkinson's and give reasons for exploring a somatically informed Dance and Parkinson's practice.

I locate somatically informed dance practice within the framework of Somatic movement studies which often focuses on people's health and wellbeing. Additionally, I make clear the differently defined perspectives of health embedded in Somatic theory and the field of medicine, since these definitions have significance for Dance and Parkinson's practice and research.

Lastly, somatically informed dance practice is explored as a process of change. I contend that as a process of change, dance has the potential to moderate some of the physical, cognitive, and emotional challenges faced by people with Parkinson's as

support to health. Exploring theories and practices underpinning somatically informed dance inquiry, I examine specific ways in which dance acts as a process of change to support health in people with Parkinson's. Somatically informed dance practice invites change when it enables people to focus on their felt sense of movement. Bringing attention to the body in motion shifts people's physical experience with effect to their cognitive and emotional responses. Through this process of change, dance has the potential to alter people's perceptions of living with Parkinson's. Moving with awareness supports self-efficacy, a sense of agency, and identity.

3.1 Dance and Parkinson's Practice in the UK and US.

The practice of Dance and Parkinson's is often a complex and interwoven process of creative, artistic, performative, and therapeutic explorations. In this context, dance is interpreted multi-variously with practitioners molding their art form so that it is relevant, safe, and beneficial for people with Parkinson's. For all Dance and Parkinson's artists, understanding and empathy are shared aims, with these two ingredients essential for transforming and creating a compassionate approach to community dance practice.

As it relates to dance, my understanding of community embodies Peter Brinson's sense of 'collective creativity' (Houston, 2017) and Diane Amans' (2017) call for dance to act as a process-based activity which focuses on participants, involves collaborative relationships, offers positive experiences, and celebrates inclusivity and diversity. It also echoes Sara Houston's thinking (2017) that dance brings people together in reciprocity since the term 'community' originates from the Latin 'munus'

or gift, and ‘cum’, meaning together. My inquiry embodies the view that, in community dance, we give amongst each other (Tomkins, 2006:31), with this concept very much at the heart of my research into one to one Dance and Parkinson’s practice.

Whereas some Dance and Parkinson’s artists concentrate on developing classes based on popular dance forms such as tango or ballroom, others, who have personal connections to people living with Parkinson’s and a history of dance, inform their experiences through Dance and Parkinson's training. Dance companies which house specific Parkinson’s programmes,[23] generally focus their practice around current repertory, whilst aiming to offer breadth within the dance experience. For instance, with the intention of reaching a broad population, the New York-based programme Dance for PD® involves participants in classical and social dancing, with imagery, poetry, and live music, inspiring them to move in creative ways.

Diversity dominates dance practice for people with Parkinson’s, with Christina Soriano and Glenna Batson (2011: 324) reminding us that while ‘the bulk of researchers have named the type of dance, and described the dosage and other aspects of the experimental environment, the actual class content has not been well described’. This is mainly because Dance and Parkinson’s practitioners aim to keep their approaches fluid and open to development. However, during my fieldwork in the United States (2014), I found that many dance artists had well-developed ideas about

[23] In the UK, repertory is often the focus of Dance and Parkinson’s practice in companies such as the English National Ballet and Scottish Ballet. In the US, this is also the case for the organisation ‘Dance for PD’ at the Mark Morris Dance Group, Brooklyn, New York.

practice, which were rooted in specific dance genres, theoretical, or philosophical viewpoints, with this area not often examined in Dance and Parkinson's research.

At Dance for PD®, Sarah Marcus[24] explained how her group sessions reflected the artistry of ballet, but also referenced yoga, and dance improvisation. With a slightly meditative start, and in a seated position, she encouraged class participants to have an awareness of their breath and perform an adapted sun salutation from yoga. Classical ballet vocabulary was applied with the aim of exploring movement in the torso, shoulder girdle, and arms during port de bras. Participants feet were slowly warmed up, with Marcus also aiming to connect the upper and lower body parts, to allow the body to open, close, and spiral, with épaulement encouraging whole body movements. Associated with ballet, barre work supported body alignment, with Marcus referencing the terms plié, relevé, coupé passé, tendu, dégagé, and piqué. Group and partnered improvisations were often based on stories, movement games, and mirroring exercises.

At another Dance for PD® class at the Berkeley Ballet Theatre in California, Susan Weber echoes similar movement principles (Weber, 2015).[25] Through ballet and Modern or Contemporary dance, and with the use of imagery and visualisation, she explores elements of technique and improvisation so that participants can expand their movement with 'safety and comfort'. Additionally, Weber's aim is to 'nurture a sense of community' since 'connection to friends may be the most important thing in class'. The teacher's role is to observe participants by 'scanning the room' to see where

[24] Sarah Marcus is a leading practitioner in 'Dance for PD'. She was originally based at the Berkeley Ballet Theatre, where she initiated a 'Dance for PD' programme. At the time of the interview, Sarah was working in the Brooklyn 'Dance for PD' projects.
[25] Susan Weber in interview with Melanie Brierley, 2015.

‘people need support or information’ and to adopt a ‘non-judgemental’ approach to practice which reflects ‘light-heartedness’ in the teacher.

For people with Parkinson’s, and their national representatives such as Parkinson's UK, access to a wide range of dance approaches has both positive and negative outcomes. A variety of dance practice creates greater choice and potentially increases participation in the Parkinson’s community. Likewise, a more cohesive approach to dance practice provides consistent class profiles and possibly enhances the quality of Dance and Parkinson’s programmes. On the other hand, when larger organisations dominate the direction of dance practice, the voices of independent artists and class participants are excluded. This latter position might be viewed as countering the principles of community dance in the UK which advocates for inclusive and diverse practice. Although referring to the issue of disability in community dance (Bartlett 2008; Lomas 1998), but equally applicable to my argument here, Houston (2019: 97) reminds us that many ‘commentators argue the necessity to step away from external models of ‘worth’ that impose particular aesthetic presumptions upon community dancers’.

Another challenge to maintaining inclusive and diverse practice is the predominance of white and Western dance forms in Dance and Parkinson’s practice. This fact was highlighted in the recent Dance and Parkinson’s symposium at Sadler’s Wells, UK (2019), where like age, ethnic diversity was noticeable by its absence. Adding to this perspective, I refer to a study of Medicare recipients in the US (Wright-Willis et al., 2010). Although the investigation showed a higher incidence of Parkinson’s in white

populations, with clusters around the mid-west and northeastern states, the black population had greater Parkinson disease-related morbidity due to disproportionate access to advanced healthcare, which was also highlighted as an issue for rural, white Medicare beneficiaries. And so, as well as ethnicity, social class may be an important factor in accessing health care, including alternative forms of health support such as dance classes for people with Parkinson's.

Strongly affiliated, practitioners in the US and UK are central to the international development of Dance and Parkinson's practice, training, and research, with this a key reason for locating my inquiry in these countries.[26] Through a Churchill Travelling Fellowship (Arts and Older People, 2014), my PhD research was widened by having the opportunity to study the work of other practitioners in the US.

In the US, Dance and Parkinson's practice has been established since 2001 through the acclaimed project Dance for PD®. Housed at The Mark Morris Dance Company in Brooklyn, this initiative has reached twenty-five other countries. Specifically, its international training programme embraces individual artists and dance organisations, so that they too can facilitate dance with people with Parkinson's. In this way, Dance for PD® has generated a worldwide dance for Parkinson's movement (Houston, 2019). It has contributed to the development of Dance and Parkinson's in communities with different cultural backgrounds, a direction which supports greater diversity of practice. For instance, Sara Houston (2019) identifies how the Kathak dancer Vonita

[26] I am cognisant that Dance and Parkinson's practice is happening in other parts of the world, including the global South, but the scholarship available in this new area of study is primarily from the UK and US, with advances in practice also seen in Australasia.

Singh developed a Dance and Parkinson's project in Dubai after attending a Dance for PD training in New York.

Currently directed by Kiki Gale, Dance for Parkinson's Partnerships UK (DPPUK) also seeks to build consensus around dance practice and training. Emerging out of the separate and shared initiatives of independent UK dance artists, DPPUK reflects a broad range of dance praxis, although the focus is often to promote Dance and Parkinson's projects attached to larger dance companies and regional dance agencies. Recently established as Dance and Parkinson's Partnerships UK, the original UK 'Network' of Dance and Parkinson's artists[27] was developed in 2012 at a similar time to Houston and McGill's Dance and Parkinson's research at the English National Ballet (2013; 2015). Some of Houston's initial investigations helped to strengthen the voice of individual dance artists (Houston, 2014)[28], identifying that their work benefitted people with Parkinson's because it was person-centred, community focused, and participatory.

Whereas Dance and Parkinson's practice in the UK led to empathetic engagement between practitioners and participants, because it was underpinned by joyful,

[27] The People Dancing website indicates that the Dance and Parkinson's UK 'Network' was originally inspired and supported by Dance for PD® at the Mark Morris Dance Group in Brooklyn, New York. In the UK, the Network was driven forward in voluntary meetings by a committed group of individuals including Toby Beazley (Director of Dance Umbrella), Ken Bartlett (Director of People Dancing), Dr Sara Houston as chair (University of Roehampton), with independent dance artists Melanie Brierley, Daphne Cushnie, Joanne Duff, Amanda Fogg, Dr Sophia Hulbert, and Anna Leatherdale. Also joining this group were Fleur Derbyshire Fox (English National Ballet) and members of Pavilion Dance South West. Other contributors to the original Network were Anna Gillespie of Musical Moving, London, Mo Morgan in Edinburgh, Gemma Coldicott in London, and Rachel Canavan in Norwich. The Network was formalised as Dance and Parkinson's Partnerships UK with Director Kiki Gale under the umbrella of People Dancing.

[28] Many original members of DPPUK still deliver independent Dance and Parkinson's classes, such as Melanie Brierley, Daphne Cushnie, Amanda Fogg, Joanne Duff, and Anna Gillespie.

reflective, and connective dance experiences, dance artists faced challenges when establishing and continuing classes, with limited funding affecting their financial situation and ability to participate in driving practice forwards (Houston, 2014). Houston chaired the primary meetings which established the Dance and Parkinson's 'Network', a voluntary group of dance artists including myself. These meetings were organised and hosted by Toby Beazley, formerly director of Dance Umbrella. Beazley also promoted connections to Dance for PD® through his relationship with the Mark Morris Dance Group, and particularly with the dance artist David Leventhal, who became director of Dance for PD®. Ken Bartlett[29] was also integral to the development of the artist-led, community dance initiative, and his involvement ultimately led to the Dance and Parkinson's Network residing under the UK's national community dance organisation 'People Dancing'.[30]

3.2 My engagement with Dance and Parkinson's practice.

As a dance artist, researcher, and registered somatic movement educator/therapist with ISMETA,[31] I generally practice in community health and education settings. My dance practice embodies the principles of community dance and aligns to the arts in community health. As Houston reflects (2019: 35), 'community dance embraces the idea that anyone may dance, irrespective of training, age, gender, ability, social circumstance or cultural background'. Citing the influential British community dance commentator Ken Bartlett, she adds that community dance 'builds on what people *can*

[29] Ken Bartlett is the former director of People Dancing (previously known as The Foundation for Community Dance).
[30] People Dancing is the national community dance organisation for the UK.
[31] ISMETA, the International Somatic Movement, Education, and Therapy Association, is based in New York, United States.

do, rather than what they can't achieve' (Bartlett, 2008: 40), with community dance supporting what an individual brings to the dance experience.

Over the last ten years, I have delivered classes, presentations, and taken part in CPD events and training related to dance for people with Parkinson's, and other neurological conditions including Dementia, Stroke, and Muscular Dystrophy. I have some experience of working with adults with profound learning disabilities and have delivered training to support workers in settings with adults living with Autism. I am currently re-engaging with somatic dance practices as support to health in younger people and adults in my community.

My initial involvement in dance for people with Parkinson's came through a request from a founder Dance and Parkinson's practitioner and Senior Neurological Physiotherapist, Daphne Cushnie. Based in Kendal (UK), Daphne was searching for a choreographer who might be sympathetic to supporting class participants in her project at The Lanternhouse in Ulverston, Cumbria.[32] At the time, I was teaching dance to Cushnie's son at Kendal College, and so he was our connection.

Like many of my Dance and Parkinson's colleagues, I was struck by the difference in participants' mood and mobility at the beginning and end of the Lanternhouse sessions. On entering the dance space, people were rather subdued or anxious, perhaps after travelling to class, and found it difficult to manage their passage to the circle of

[32] Alan Sykes of the Guardian newspaper (2012) wrote about the closing of The Lanternhouse, which had deep roots in the celebratory and participatory arts field, having been established, as Welfare State International, back in 1968 by Yorkshire-born partners John Fox and Sue Gill.

chairs and to then sit down. However, once the music started, and Cushnie led people through a series of movement phrases and improvisational sequences which included passing large pink, fluffy flamingoes across the circle, class members began to laugh, look more relaxed, and seemed more open in their bodies. On the way out, people's movements were less restricted, they laughed and joked with each other, with this happier outlook continuing downstairs where we shared tea and biscuits in the café. The effect of attending this initial class was so great, that I became committed to engaging with dance with people with Parkinson's. I continued working in partnership with Cushnie at the Lanternhouse and in Kendal-based classes, until February 2013, when I set up my own group sessions at St. John's Hospice, Lancaster. Through my partnership with Cushnie, I gained valuable insight into the neurophysiology of people with Parkinson's and how this connects with dance practice in this context.

Specifically, neuro-physiotherapy for people with Parkinson's aims to compensate for the deficient internal (automatic) generation of movement, although it is recognised that even with physical therapy, movement will not become automatic. Strategies include person-specific movement cues, learning the skill of attention where people focus on their internal experience of movement and practicing complex motor sequences. Strategies for attaining complex motor sequences involve breaking tasks down into simple components, with movements performed in a specific sequence with conscious control, and if required, guided by external cues (European Physiotherapy Guideline for Parkinson's Disease, 2014). These neuro-physiological principles are echoed in dance practice and training, with their connective potential relevant to somatically informed dance practice in my study as explored in Chapter Five.

Whilst working with Cushnie, I was also a student and then lecturer[33] on the master's programme 'Dance and Somatic Wellbeing: Connections to the living body' at the University of Central Lancashire, Preston.[34] My somatic discoveries, included Continuum practice with Mary Abram,[35] an insight into Body Mind Centering (BMC) and Laban Movement Analysis (LMA) with Dr. Martha Eddy,[36] co-creative, one to one practice with Dr Amanda Williamson,[37] Authentic Movement with Penny Collinson,[38] and creative, experiential movement with dance artist and cranio-sacral therapist Miranda Tufnell.[39] Through a Rebecca Skelton Research Award (2013), I also studied the BMC muscular system at Embody Move, UK, specifically to explore the effect of touch based dance and movement practices on the muscular systems of people with Parkinson's.[40]

In 2014, I was awarded a Churchill Travelling Fellowship to study Dance and Parkinson's practice in the US.[41] In the first part of my Churchill journey, I spent 2.5 weeks exploring dance practice with members of Dance for PD® and worked with the Parkinson's movement coach Pamela Quinn, attending her classes, and working with/interviewing Quinn at her home. Here, we shared ideas and thoughts about our

[33] Part-time Lecturer covering maternity leave and staff illness (2008-2010).
[34] MA Dance and Somatic Wellbeing: Connections to the living body is based at the University of Central Lancashire, Preston, UK.
[35] Mary Abrams is the director of Moving Body Resources in Manhattan, New York.
[36] Dr. Martha Eddy is the founding Director of Programming and Research at Moving For Life, Dynamic Embodiment (a Movement Therapy Training using Somatic Education) and Center For Kinesthetic Education (Private Practice & Work in the Schools).
[37] Dr. Amanda Williamson is the director of Moving Soma, Cheltenham, UK.
[38] Penny Collinson is the programme leader of MA Dance and Somatic Wellbeing: Connections to the living body based at the University of Central Lancashire, Preston, UK.
[39] Miranda Tufnell is a dance artist, writer and teacher in movement and imagination. She is also an Alexander teacher and Cranio-Sacral Therapist.
[40] Embody Move is the UK-based BMC programme led by Katy Dymoke.
[41] I travelled to Brooklyn, New York and Oakland, California.

approaches to one to one Dance and Parkinson's practice. I also interviewed the somatic practitioners Dr. Martha Eddy and Mary Abrams to discuss my use of somatically informed dance practice with people with Parkinson's. Founder and director of Moving Body Resources in Manhattan, New York, Abrams is a leading figure in the study and practice of Continuum. Acknowledged for her pioneering work in Dynamic Embodiment, Martha Eddy has also worked with Janet Hamburg (1951-2010) in the US and has knowledge of the Welsh movement practitioner Betty Meredith Jones (1908-1996), with both practitioners former movement specialists with people with Parkinson's.

I had already commenced my PhD fieldwork before revisiting the United States for the second phase of my Churchill award in 2015. In this year, I visited Oakland, California and worked for over three weeks with John Argue, experiencing at first-hand his 'Art of Moving' for people with Parkinson's, which I am now certified to teach. In California, I attended a range of other initiatives for people with Parkinson's such as Yoga for Parkinson's with Carol Fisher, Feldenkrais practice for Parkinson's with Vivianna Diaz, and Dance for PD® registered classes with the independent artist Claudine Naganuma and artists from the Berkeley Ballet Theater.

Like the dance artist Monica Gillette[42] (2017), I became interested in uncovering the 'silent' or implicit knowledge that was taking place in the act of dancing with people with Parkinson's. I wanted to explore more fully the meaning of these non-verbal

[42] In 2013, as a dancer and choreographer working at Theater Freiburg in Germany, Monica Gillette was invited to collaborate on a research project centering on people with Parkinson's between the theatre and University of Freiburg's Excellence Cluster 'BrainLinks-BrainTools'.

exchanges and how they might lead to a greater understanding of the way dance benefits health in people with Parkinson's. I recognised the value of investigating dance for people with Parkinson's through a somatically informed perspective where felt level experiences are at the forefront of practice. Explored with people with Parkinson's, I understood that my interpretation of somatically informed dance practice would emerge through the research process. I aimed to focus on dance in a one to one context, so that through shared movement practice, people with Parkinson's could enter the research process as co-creators of dance and producers of embodied knowledge. I wondered whether somatically informed dance practices might support the many challenges faced by people with Parkinson's in the experience of their health condition. Could somatically informed dance practice promote awareness in people who faced difficulty with movement and thinking? How might dance effect change in people's perceptions and activities of daily living?

Aiming to answer these questions, and others that might arise in the research process, I begin my investigation by identifying and locating somatically informed dance practice.

3.3 Locating somatically informed dance practice.

Somatically informed dance practice is a branch of Somatics which advocates dance as support to health. Difficult to categorise as a discreet field (Eddy, 2009), Somatics encompasses a multi-modal dance and movement pedagogy which aims to support

people's health and wellbeing.[43] The noun 'Somatics' comes from the Greek 'Somatikós', meaning 'of the body' or the body experienced from within (Hanna, 1970). It is through the moving body that we learn to understand more of ourselves and others. Looking inwards, we become aware of our bodies as living, evolving systems. Turning outwards, we sense how our bodies connect with the wider environment and other people. Bringing awareness to these connections and interconnections, somatic practitioners aim to promote healthy bodies and minds.

Martha Eddy's detailed timeline of somatic practitioners (2009; 2017) traces the historical progression of somatic educators and therapists and locates somatically informed dance practice. Firstly, Eddy identifies three areas central to Somatic inquiry. Whereas Somatic Psychology concerns issues of trauma and attachment, Somatic Bodywork echoes individual movement practices developed by first-generation somatic educators such as Frederick Matthias Alexander (1869–1955) and Moshe Feldenkrais (1904-1984). Somatic Movement, including somatically informed dance practice, explores the potential for novel or new movement coordination through the dancing body as support to health and wellbeing because when we sense into personal and unique movement requirements we can move towards healthy functioning in the body-mind (Eddy et al., 2014).

[43] Thomas Hanna (1985), Don Hanlon Johnson (2004) and Seymour Kleinman (2004), identified the common 'methods' used by a range of body focused practitioners, with Hanna first conceiving the term 'Somatics' in the 1970's (Eddy, 2009).

The first generation of somatic practitioners often developed practice in response to personal illness or injury.[44] Looking inwards, practitioners explored bodywork, with touch-based practices supporting health. As second-generation somatic practitioners, Anna Halprin, Elaine Summers, Bonnie Bainbridge Cohen, Sondra Fraleigh, and Emilie Conrad aimed to merge Somatics with dance studies to illustrate the healthy benefits of dancing. These pioneers integrated the work of first-generation somatic practitioners, their antecedents from the field of dance studies,[45] and influences from Eastern body and mind practices.[46] Second generation teachers offered written information as a means of developing praxis, with the understanding that the experience of 'doing', or exploring practice, was preeminent. Third, and currently, fourth generations of practitioners, have amalgamated theory and practice from their somatic progenitors and wider spheres of influence in dance studies, with universities across the US and UK forging the way for somatic inquiry through dance studies. Specifically, these programmes focus on somatically informed dance practice as a process for supporting health, an area which I now explore.

3.4 Health in Somatics.

Due to contrasting perspectives of the body, health is differently perceived in somatic theory and medicine. Examining the body from an external or third-person perspective, the medical or curative model of health focuses on eliminating or

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[44] Eddy (2009), cites first-generation Somatic practitioners as F. M. Alexander (1869-1955), Irmgard Bartenieff (1900-1982), Gerda Alexander (1904-1994), Moshe Feldenkrais (1904-1984), Mabel Elsworth Todd (1880-1956), Charlotte Selver (1901-2003), Ida Rolf (1896-1979), and Milton Trager (1909-1997).

[45] Eddy (2009), also refer to the works of Pehr Heinrich Ling (1776-1839), Jaques Dalcroze (1865-1950), Rudolf Laban (1879-1958), Mary Wigman (1886-1973), Francois Delsarte (1811-1871), Elsa Gindler (1895-1961).

[46] Eddy (2017), cites Eastern practices as Yoga, Tai Chi, Chi Kung, Judo, Katsugen Undo, Aikido, and movement from ancient and indigenous cultures such as Haiti.

reducing disease impact through prescribed medication or other medical interventions. In Somatics, rather than divorced from its subject, or externally observed from a third-person perspective, the body, or soma,[47] is internally perceived through a first-person viewpoint, as personal or subjective experience. In dancing, my body is not set adrift or personally unrelated since 'my dance is my body as my body is myself' (Fraleigh, 1996:31). Rather, lived in its wholeness, my body is the center of my dance experience, an interdependent matrix for my physical, cognitive, emotional, and spiritual concerns (Johnson, 1997).

In medicine, a binary view of the body separates physical from mental health, and the body from the mind, with the adjective 'somatic', denoting a 'physicalist body as distinct from the mind and soul of a person or...the musculoskeletal frame as distinct from the nervous system and visceral systems of the body and the cranium' (Don Hanlon Johnson, 1995: Introduction, xv). By contrast, somatic studies view the body as an interrelated system of psyche and soma, with non-dualistic perspectives of the body and mind countering Cartesian representations of the divided self-embedded in Western thought and medicine.[48] In Somatics, the body-mind continuum could be regarded as an overall process that is not easily dissected into separate and distinct components or parts (Achterberg et al., 1994).

Engaging the biopsychosocial aspects of a person (Engel, 1977), somatic practices are aligned to holistic rather than orthodox medicine, with the patient as well as their

[47] The term 'soma' refers to the lived body in its wholeness.
[48] Refer to Fran Levy (1988) and Don Hanlon Johnson (1983;1995).

illness accounted for (Goodwill, 2005). In the medical model, the body is a passive object on which the disorder of Parkinson's is inscribed, with medical terminology questioning a person's individuality rather than seeing what their needs really are (Karkou and Sanderson, 2006).

Holistic perspectives of the body and health echo WHO's original definition (1948), of health as a 'state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity' (WHO, 1948). Recently updated (Fancourt and Finn, 2019), WHO's report not only embeds health in society and culture, but also embodies the concept of wellbeing, which is the experience or perception of being well. The report illustrates how the arts support psychological, physiological, social, and behavioural health. Whereas the arts support psychological health by enhancing self-efficacy, coping strategies, and emotional regulation, they help to reduce stress hormones, enhance the immune system, and support cardiovascular health as physiological components. The arts reduce loneliness and isolation, enhance social support, and improve social behaviours, with potential to enhance a person's behavioural patterns because they promote exercise and skill development.

Additionally, it is recognised that the restitution narrative embedded in the field of medicine (Frank, 2013) is not the ultimate goal for people living with a long-term health conditions such as Parkinson's. Rather, their ability to manage everyday life is a more realistic outcome (Houston, 2015), with health requiring a prolonged capacity to cope physically, emotionally, mentally, and socially with our environment (Allegranti, 2013; Borgeault, 2003). One way of supporting challenging health experience in

people with Parkinson's is through the process of dancing, since dance can move people towards pleasurable functioning as a life-preserving and life-enhancing activity (Juhan, 2003).

3.5 Health and changing perspectives.

A key aim of somatically informed dance practice is to promote health and support wellbeing by changing people's day to day or moment by moment perspectives of their moving bodies. In this respect, dance acts as a process of self-regulation (Eddy et al., 2014). Dance has the potential to change health because each person's body holds wisdom and intelligence (Hartley,1995). Becoming aware of our response to new or novel movement through dance, and the corresponding shifts in our bodies regulatory system, there is potential to enhance physical, cognitive, and emotional health, with perceptions possibly altering in the process of inviting change.

I contend that somatically informed dance practice supports the opening of perception through a focus on the felt experience of moving. Williamson (2009:18) concurs that somatically informed dance and movement educators 'address alienation from the sensate through radical models of kinaesthetic education', with traditional pedagogy teaching people to know the world primarily through the visual and auditory systems, as exteroceptive sensing. In this latter context, we often learn about our world and what is 'going on at some distance from our bodies', with the kinaesthetic and interoceptive, or felt sense, undervalued (Myers, 2020, 1998:102). In agreement, Ann Cooper Albright (2019: 26) establishes that through somatically informed dance practice, people become 'open to the world and intensely grounded in an awareness of

one's own experience'. Furthermore that 'a somatic focus on sense perception instead of visual shape can move us beyond our habitual patterns by opening our kinaesthetic curiosity, energizing our physical presence with an attention to a shifting palette of proprioception, gravity, space, time, and other bodies'.

Emerging from his research into psychotherapeutic change, and through his practice of focusing, Eugene Gendlin (1981) contributes to our understanding of embodied knowing as a 'bodily sensed knowledge' or the 'felt sense' (Gendlin, 1981:25). The felt sense, informs what the conscious mind is initially unable to articulate (Harris, 2013). It is a feeling felt, which in everyday terms might be explained as a visceral sensation, or gut feeling. Perhaps a person feels 'out of sorts', or senses that something is wrong, and 'just can't place their finger on it'. A research participant Bob reflects on his experience of tuning into his felt sense: "It's not something that I've been taught. It's something that I feel'. He calls this phenomenon "instinctive dancing".

The process of focusing concentrates our awareness, and supports bodily attention, so that we can get in touch with our felt sense. In somatically informed dance practice, we might focus on the breath or explore touch-based practice as a means of developing awareness to felt experience. Jane Bacon (2007) identifies how the felt sense is echoed in Antonio Damasio's idea of 'somatic markers', with the term 'somatic state' locating the body as the 'holding place' of feelings which are noticed and then 'marked' as internalised images (Damasio, 1994).

The term ‘holding place’, refers to the Donald Winnicott’s[49] concept of the ‘holding environment’. Winnicott’s developmental model concentrated on the tasks involved in supporting an infant’s growth towards maturity, with the environment central to this provision. The infant’s mother, who in the early weeks is the infant’s environment, supports their child’s growth and adaptation through a safe and ‘good-enough facilitating environment’ or ‘holding environment’. In a physical and emotional sense, the mother’s holding environment enables the child to experience the body as a place of security (Winnicott, 1973) and to manage life in an ever-widening circle of family, school, and social life. Winnicott contends that emotional problems emerge when a person had been deprived of such holding environments in childhood and that a level of holding was critical to the therapeutic environment. In a psychotherapeutic process, the therapist, like the mother, provides a space with secure boundaries to form and hold a trusting relationship with the client (Jacobs, 1995).

In Home Performance, I investigate Gendlin’s ‘felt sense’ and explore Winnicott’s ‘holding environment’. Like the DMP Beatrice Allegranti (2009), I view the body as a ‘holding space’ for felt level material, with the body a source of insight, and a subject of analysis (Fonow et al., 2005). Together with research participants, I reflect on my bodily-felt experiences of dancing, with this data a form of knowledge production which enables me to construct a new framework of one to one Dance and Parkinson’s practice.

[49] Donald Winnicott (1896-1971), an English pediatrician and psychoanalyst, was especially influential in the field of object relations theory and developmental psychology.

Being present in our body is not only a form of awareness, rather ‘it is the first step toward being kind to ourselves and others’ (Hartley, 1995: xxi). In Home Performance, a safe and ‘good enough’ holding space is marked at the beginning and close of sessions through our embodied hand gestures. With a research participant Bob, I explore the hand gestures of ‘Namaste’ or the Añjali Mudrā, meaning “I bow to the divine in you”. This is because Bob enjoyed and appreciated the calming aspects of yoga classes at the Neurodropin Centre, Lancaster, with yoga a way into communicating with Bob through movement. Similarly, the home is a holding space for shared dance practice. The home is a communal space of refuge (Fraleigh, 1996) or a ‘socio-communal space’ (Williamson, 2009:31) which offers new opportunities to participate and socialise. Through somatically informed dance practice, we bring awareness to our felt experience of moving. We aim to develop a sensitivity to our perceptions, attention, and internal authority as we explore an embodied interaction with our surroundings and other people (Williamson, 2009).

To embody means to have or to hold something within the body, whether this is in a metaphorical, physical, psychological, emotional, or spiritual sense (Coaten, 2009; 2011). An embodied experience, dance may influence the way we think, feel, and behave and in doing so, act as a process of change. This is because ‘we feel and observe our life experiences through our bodies’ (Halprin, 2003:17). Through an embodied knowing, we inform our postures, gestures, and emotions (Halprin, 2003), with felt experience or ‘somatization’ (Cohen, 2012) constituting the ‘material me’ (Eddy, 2016) as an entirely subjective awareness of the inner state of the body (Pashman, 2017). In dance, self-knowing is developed through sensual movement

explorations, so that ‘every step I take discloses a new piece of the world to me, or I see the old one from a different angle’ (Parviainen, 2003:157), so that dance is a journey into ‘physical thought’ (Fulkerson, 1975:11). Exploring the felt sense, as a means of developing an awareness or connection to self, leads to self-knowing (Damasio, 2008),[50]‘thinking in movement’ (Sheets Johnstone, 1981), or ‘thinking through the body’ (Batson and Wilson, 2014), which is a pathway for personal growth, change, and health (Tufnell, 2017; Sylvie Fortin, 2018).

As support to health, dance promotes changing perspectives which are bodily felt and made conscious. As a self-regulating, dynamic environment, the body is neither static nor solid, but motile and supple. (Hanna, 1980). It exists in a state of flow, with every part ‘continually undergoing dynamic changes from liquid sol states to solid gel states and back again as we grow, move, learn, and age, and no single part ever changes its state without sending reverberations out to all the other parts’ (Juhan, 2003:537). In the somatic movement practice of Continuum, the term ‘gel’ refers to the process of embodying form, whilst the word ‘sol’ describes its dissolution (Conrad, 2007). Through this process of ‘creative flux’, the body renews itself and aims towards homeostasis, a state of balance which is fundamental to our ability to innovate, self-organise, and establish positive health experience (Juhan, 2003; Halprin, 2002).

In Parkinson’s, creative flux or flow dissipates so that people move with rigidity, their muscles and fascia lacking play or fluidity. The progression from gel to sol is slowed

[50] The term ‘self- knowing’ is referenced severally in SMDE as ‘embodied knowing’ (Rouhiainen 2007; de Lima 2013), ‘thinking in movement’ (Maxine Sheets Johnstone 1981), ‘meta-kinesis’ (Glenna Batson 2014).

down, and in the later stages of the condition, not easily observed. Unable to fully transition from a state of gel to sol, the muscles remain bound, never fully resting or experiencing release. The following passage from my movement diary describes my felt experience of this body state when working with a person with Parkinson's:

> Holding my partner's arm, the tissues feel locked, immobile, and unresponsive. Slowly, I begin to bring movement to their limb, a gentle partnered dance which finds motility in the joints. Moving in this way, I notice some softening within the muscles, their weight resting more fully in my hands. We breathe, and I feel a sense of calm or release (Mel diary notes: 2016).

Through a state of creative flux or flow, and as a process of change, dance has the potential to influence the body's physiology and sustain healthy functioning in people with Parkinson's as a pathway to improved health. When dance shifts people with Parkinson's from stasis into action it may function as a process of self-regulation, enabling the body to move towards homeostasis. In dancing, the moments which transition the body from a state of gel to sol and back again may become more apparent. But what are some of the dance processes through which this state of bodily flow can be achieved and how does the feeling of flow affect change?

As sensory-motor action, dance acts as a catalyst for change.[51] This is because dance can affect 'autonomous physical and emotional expression by stimulating many sensorimotor systems (visual, auditory, somatosensory, vestibular) through whole body movement in complex environments and tasks' (Batson et al., 2014:188-197).

[51] Refer to Anna Halprin **(**2004**);** Daria Halprin (2003, 2014).

Dance instigates a flux or flow of sensory-motor information between the external, sensory environment and the internal, felt experience of the moving body. In the process of dancing, information is received and transmitted from the external world through the body's external sensory receptors as exteroceptive sensing (Batson and Wilson, 2014; Caldwell, 1996) and felt interoceptively, as internal bodily sensation.

Dance activates a dynamic and constant feedback loop back and forth between our brains and our bodies, so that our felt experience encompasses one of change and possibility. Here, my study echoes Grosz (1994) and Garrett Brown (2007) whose feminist/somatic perspective supports the idea of the body as a fluid entity which is always in process, with the relationship between people's inner and outer experiences central to informing and supporting identity.

As sensory-motor experience, each dance movement, gesture, or sequence of gestures, inscribes itself on the sensory cortex as a sensory record or engram. Sensory engrams carry the template of an individual's history of learned experiences and their 'muscular armoring' that reveals 'character type' (Lowen, 2006). Memorised as templates in the sensory cortex, sensory engrams influence 'body schema'. Regulating movement and posture, body schema affects capacity, or the ability to perform movement, and accuracy, which is the ability to move well. Once the feeling of a gesture is established as a clear memory, the engram becomes a template for future, repeated movements (Juhan, 2003). The engram is 'the cortex's means of learning new skills and behavioural patterns, and of imposing them upon the primitive levels of our motor organization' (Juhan, 1987:266).

The body schema is a system of sensory-motor capacities which shape our perceptual field. Functioning without conscious awareness, body schema subtends the initiation of movement. It is pre-reflective, giving an implicit sense of self (Gallagher, 2005; Schore, 2011). Body schema is different from the concept of 'body image' which is based on the perceptions, mental representations, attitudes, and beliefs we hold of our own body rather than the accomplishment of movement. The concepts of body schema and body image may interact since a perception of one's own movement, or indeed someone else's movement, is complexly interrelated to the accomplishment of one's own movement (Juhan, 2003).

To perform the same movement again, or recall the sensory engram, we need to remember how it feels. Successful movement functioning depends on the interaction between body schema, proprioception, and tactile information. These movement components maintain a three-dimensional schematic map of the body. In particular, when a sensory engram is recalled for the purpose of repeating a gesture or action, 'the proprioceptive feedback of all the body parts is compared against that memory for each step of the intended repetition, and cerebellar corrections are made automatically and unconsciously' (Juhan, 2003: 5579).

In Parkinson's, proprioceptive awareness diminishes, with reduced sensory feedback impacting body schema (Kinsbourne, 1995). This is because a working body schema needs to interactively track the movements and positions of body parts in space.

It could be argued that the decline in proprioceptive awareness may be partially a

result of the normal ageing process, with many people with Parkinson's experiencing their condition in later life. From the age of 40, the proprioceptive system declines in terms of position sense, with touch and pressure thresholds also reducing (Brodie and Lobel, 2016). Applying the correct amount of force when moving may also become increasingly difficult (Gallahue and Ozmun, 2006). However, diminished proprioceptive awareness is also a feature of early stage and early onset Parkinson's, with reduced proprioception increasing with disease longevity.

Missing a vital component for remembering how the moving body feels, body schema is compromised. There is a loss of connection between the desire to move and the act of moving. As a result, people with Parkinson's are often limited in movement, with automaticity, range and amplitude greatly reduced. Motor tasks are still possible, but often severely compromised (Konczak, 2009). Movement may lack precision, with changes to postural and spinal reflexes leading to problems with balance and gait and an increased likelihood of falling (Dietz et al.,1995; Rothwell et al.,1982).[52] When faced with obstacles to movement in the home or wider environment, people with Parkinson's may be limited in their mobility, or lose their desire to keep moving. For people with neurological conditions such as Parkinson's, there is an important link between movement and sensation because what they do not sense, they cannot move; what they do not move, they cannot sense (Hanna 1980). Similarly, Johnson reflects that 'we cannot sense without acting, and we cannot act without sensing' (Johnson, 1995: 345). Entering this cyclical pattern of movement deterioration, people with Parkinson's may have negative thoughts about their movement potential which can

[52] Dietz et al., (1995); Rothwell et al., (1982), are cited in Konczak et al., (2009:543).

increase anxiety and lead to symptoms of depression**.** And so, it is important to consider an individual's access to movement and environment of sensation in supporting body schema.

Like athletes, dancers optimise body-schema. They can automatically perform complex and precise actions as learned and integrated patterns of movement, with sensing and acting combined. With enhanced body schema, they make subtle adjustments to posture and movement, thereby increasing their movement capacity and accuracy. For the professional dancer, the act of dancing provides important proprioceptive information about the muscular effort needed for specific body actions. For people with Parkinson's, taking part in dance may be an important way of maintaining healthy movement functioning. This is because dance is a process of multisensory integration (Keisuke Suzuki et al 2013). For people with Parkinson's, dance may re-integrate existing neural connections and form new ones (Farley et al., 2008).[53]

At this point, it is important to note that the term 'proprioception' is often used interchangeably with the word 'kinaesthesia' because they are 'interrelated sensory phenomena' (Batson and Wilson, 2014). The term 'proprioception' originates from the Latin 'proprius' meaning one's own, and 'percipere', to perceive (Mosby, 2009 in Batson & Wilson, 2014). Proprioceptive information is established through the signaling and perception of internal bodily sensations, such as muscle tension or tingling (Hindi, 2012). Derived from the Greek root 'kinein' to move and 'esthesia' as

[53] Farley (2008) is cited by the researcher and Dance and Parkinson's artist Sophia Hulbert (2015).

in feeling or perception, kinaesthesia incorporates the unity of sensing, perceiving, and acting (Bainbridge Cohen, 2012). Until there is greater scientific understanding of how humans perceive their bodies, the distinction between proprioception and kinaesthesia will remain blurred (Eddy, 2016). However, an attempt to signify their different roles may be important when describing and analysing possible ways in which dance can affect change in people with Parkinson's. Exploring these terms, I now aim to make clear current thinking regarding the functions of proprioception and kinaesthesia.

Proprioception is more about localised muscle sensation (Stillman, 2002) whereas kinaesthesia has two sensory inputs: position (Skinner & Barrack, 1990) and movement as dynamic sensing (Warner et al., 1996; Gardner and Martin, 2000). Whereas proprioceptively we may have a felt experience of the body position and movement in space, because even a static position incorporates body orientation and body part relationships, kinaesthetically we sense neuromuscular and mechanical feedback about the rate, amplitude, direction, and force of movement' (Batson, 2009: 35). Either on a conscious or unconscious level, proprioception is an internal, interoceptive experience (Eddy, 2016). However, proprioception does not always involve sensation since, in relation to learned skills, it largely happens unconsciously, and without sensation. This is also the case when proprioception acts as reflex protection for joints against potentially harmful forces and protection of the body against falls (Stillman, 2002). In contrast, kinaesthesia locates itself firmly in the sensory realm, together with visual, auditory, tactile, gustatory, and olfactory elements.

Like Stillman (2002), Batson and Wilson (2014) aim at a solution for the indefinite distinction between the term proprioception and kinaesthesia. They contend that proprioception is most clearly perceived as localised muscular sensations of the body whereas kinaesthesia is outwardly directed and informed by a connection to space, encompassing positional and dynamic movement. Proprioceptive information may form the basis of kinaesthesia as sensed experience (Jürgen Konczak et al.,2009). Ultimately, kinaesthesia is 'tied up with action' (Batson, 2014: 92; Bainbridge Cohen, 2012) and the ability to receive exteroceptive or external sensory information (Alva Noë, 2009). Our kinaesthetic sense emerges not from 'something we have but something we *do* and that we do as a consequence of relating to our environment' (Noë, 2009: 64).

So far, it has been identified that like dancers, people with Parkinson's may benefit from dance which informs and supports their 'body-schematic performance' (Gallagher, 2005: 35). Since changes to the body schema are active and continuous, dance also has the potential to affect neural plasticity and support new movement potential in people with Parkinson's. One way of absorbing and consolidating new movement is through movement repetition, with and without variation. This approach is often applied when training dancers as performance artists, with scaffolding techniques supporting movement learning (Enghauser, 2007), with the scaffolding approach to learning with research participants discussed in Chapter Six. Additionally, and through the dance process, specific movements may be practiced in a mechanistic fashion, with students also absorbing visual information from their teacher. Rehearsing, or repeating specific movements or movement patterns may enhance body

schema in the Parkinson's population.

In support of this thinking, Heiberger et al., (2011) identify that together with verbal and visual feedback, sustained movement repetition during the act of dancing may help to improve proprioception in people with Parkinson's, (Ramsay and Riddoch, 2001; Schweiger, 2009). Heiberger et al., (2011) also noted that proprioceptive awareness acquired through the felt experience of connecting with the Ballet barre, supports body awareness, with eight out of eleven participants with Parkinson's experiencing improvement to body-feeling immediately after a dance class, and participants generally feeling less rigid after dancing. Chapter Five, discusses how research participants living with Parkinson's receive important proprioceptive feedback from objects and the structural holding space of the home environment.

3.6 Changing thinking

The moving body shapes the mind (Gallagher, 2005). The idea that dance affects the mind as it influences the physical body, originates from the theory of embodied cognition or kinesthetic consciousness (Damasio, 1999). The theory of embodied cognition presupposes that thinking arises from, and is shaped by, the moving body in its environment (Varela et al.,1991). Opinions vary widely about the degree to which the body influences thought, with perspectives ranging from those people who view the body as 'merely involved in the formation of thought, to more radical or dynamic theories in which the body is constitutive of thought' (Batson & Wilson, 2014:44). My research leans towards the latter view because although the main feature of Parkinson's is that it affects movement detrimentally, at least 60 percent of people

living with this neurological condition also experience symptoms of depression (Parkinson's Disease Foundation, 2017). In addition, Parkinson's changes the production of the neurotransmitter dopamine in the basal ganglia of the brain, with impact to both movement and thinking.

Dance affects cognition, because 'brain changes reflect physiological changes in the body' (Damasio, 2008:17). Batson et al., (2016) assert that agency, the ability to act and think independently or autonomously, is not driven by mental processes alone but is a result of information relayed through the body in motion, with the idea of agency further elaborated later in this chapter. Shusterman (2008:92) contends that muscle or motor memory often requires and illustrates significant cognitive skills which are embodied.

McNeely et al., (2015) highlight that although the effects of dance on cognition have so far been inconsistent in studies of dance for people with Parkinson's, there is increasing evidence to suggest that dance may improve cognitive functions such as spatial tasks, task switching, and stimulus processing. Dance may also promote the activation of brain regions that normally display low activity in Parkinson's (Earhart, 2009). Adding further evidence, Westheimer et al., (2015) indicate that dance engages cholinergic pathways which helps people with Parkinson's to think more clearly about movement tasks, whilst McNeely et al., (2015) identify that global cognition and executive function show greater improvement for tango compared to self-directed exercise (Rios Romenets et al., 2015).

In Home Performance, a research participant reflects on the way dance positively affected his thinking. Bob identifies that:

> you set me tasks, to learn routines. And, quite a lot of them are hands and feet together. And they work, because with Parkinson's one of the problems is you can't coordinate properly. Your coordination has gone to pieces. And they (the directed movement and shared improvisations) help you sort it...well, they don't sort it out, but they help to activate it {coordination}. By doing routines, when the hands and feet are working together, it means that I'm more coordinated all of the time. Having to do a routine where I'm moving my hands and my feet, keeps my mind going. So, my mind's more attentive than it would have been. Because it's running short of dopamine, basically. But that's, {coordination through dance} teaching me how to do things, and the effects of that last. It doesn't wear off. {If anything breaks the movement}[54]you've got to stop and start again. You can't miss a step and pick it up again. You have to start from the beginning. Because, you mind doesn't absorb it otherwise. At least mine won't'.

Bob's reflection also illustrates how each person with Parkinson's responds differently to the dance experience and to stressful situations. This is because the response of the autonomic nervous system even to simple physical stressors such as pain, temperature, or thirst is extremely nuanced and varies between people (Saper, 2002), so that it cannot be described as unitary 'stress response' (Payne et al., 2015). Stress de-activates the prefrontal cortex, thereby reducing people's capacity to think clearly (Tufnell, 2017:113). By-passing cognitive controls, dance helps people to shift stressful movement situations, thereby enhancing their motor and premotor activity.

The way we perform movement and the choices of movement that we engage in is dependent on the neurological feedback that we receive from our bodies (Fogtmann,

[54] My insertion into Bob's narrative.

2012). For the main part, somatically informed Dance and Parkinson's practice focuses on the authentic and improvisational aspects of dance. Dance improvisation helps to train brain networks involved in movement automaticity in people with Parkinson's (Batson et al., 2016), with this area now explored.

Experiencing reduced automaticity of movement, people with Parkinson's often need to rely on cognitive strategies to support their motility. Cognitive planning is generated in the prefrontal cortex of the brain and acts as a support to movement which would otherwise happen automatically. It was first thought that prefrontal cortical activity would respond as people with Parkinson's experienced reduced motor activity (Batson et al., 2016). Instead, referring to research by Liu Chow et al., (2012), it is increasingly evident that the prefrontal cortex is in fact deactivated during improvisation, with motor and premotor regions becoming more active.

This means that for people with Parkinson's, dance improvisation can positively affect motor activity, thereby reducing the need for cognitive controls often stimulated through the focal system to support motility, with dance helping to prevent overthinking and controlling when executing movement (Brodie and Lobel, 2016; 2008). Through improvisation, people with Parkinson's have the potential to make instantaneous choices about the way movement is performed. The speed of improvisational cues, and momentary movement changes support participants to respond instantly to others and move beyond their 'self-perceived capability' (Batson et al., 2016: 6).

There is a correlation between the conscious movement and agency (Fogel, 2009). Improvisation promotes agency through the intentional actions of dance-makers, so that people with Parkinson's have potential to experience agency through dance improvisation. In this process, they are disengaged from 'the apprenticeship of observation' toward autonomy in movement creation and when people experience autonomy in everyday life, they can act from their own embodied values and experience the world from a position of choice (Hammurland et al., 2018). Dance promotes agency when people become active participants in shaping their lives, including their health and health perception (Fortin,1998: 52; Halprin, 2002). Agency is felt because people with Parkinson's are involved in an 'invention process' through which they explore new problems to generate new actions (Robeiro & Fonseca, 2011:73). The invention process of dance engenders conscious decision-making, where people with Parkinson's can take control of their own movement and experience cognitive flow, both diminished through the condition of Parkinson's. One of the conditions of the self-determination theory from the field of psychology is that acting competently, people feel effective and confident when interacting in their surroundings or society (Deci and Ryan, 2000, 2008).

An active process of conscious experience (Sacro-Thomas, 2010), I describe the process of improvisation with people with Parkinson's as 'flow in action', an area further explored in Chapter Five. The idea of improvisation as flow in action for people with Parkinson's, is specifically identified in a pilot study which compared Tango with Contact Improvisation. David Marchant et al., (2010) found that like Tango, Contact Improvisation enhanced functional mobility and balance as a partnered

dance intervention, confirming the physical benefits of different dance forms for people with Parkinson's. The investigation also included some qualitative data which captured participant experiences of dance following Contact Improvisation. The findings revealed that most people with Parkinson's preferred Contact improvisation to Tango, because as one participant reported, 'Contact improvisation far exceeded [tango] in enabling me to move freely' (Marchant et al., 2010:189). In Contact Improvisation, people with Parkinson's perceived themselves as free flowing rather than bound, a movement quality which supported positive feelings and thoughts as well as promoting improved movement function.

An open-ended process of self-discovery, improvisation supports people to learn new movement patterns and perceive new sensations (Williamson, 2009). This is because through the process of improvisation 'we can try things out, make discoveries, take risks, do it again', and with different 'feelings and experiences, become 'transformed through this dynamic use of creativity' (Halprin 2003: 19). Here, creativity is about working with the imagination, with the imagination taking us 'beyond and behind the everyday' and toward the 'active transformation of experience' which makes the self-visible (Levine & Levine, 1999: 259– 260). As an active transformation of experience, dance has potential to shift people's feelings, perception, and identity.

3.7 Changing feelings and perceptions.

Dance has the potential to shape experience (Ponty, 1962) and craft perception (Bainbridge Cohen, 1993). And so, dance is the 'unifying bond between the mind and body, and sensations are the substrate of that bond' (Juhan, 2003: xxvi). Change in the

internal physiological state of the body affects our emotions, with influence to affect states which are then known or expressed as conscious feelings such as anger, disgust, or happiness (Tomkins, 1962; Damasio, 2000; Abrams, 2011). Daria Halprin (2002:104) reminds us that from 'the ground of physical responses and expression, emotional and mental impressions emerge'. What ends up as conscious or perceived feelings, begins at a cellular level in the body.

For Damasio (2000), feelings are emotions made conscious, with emotions playing an important part in the overall regulation of the body (Payne, 2019). Generated in the act of dancing, emotion happens at an unconscious level, whilst feeling is the subjective awareness of that very movement (Pashman, 2017). Through the act of dancing, the feelings and perceptions associated with living with Parkinson's may change. Issuing in a different perception of self or identity, dance has potential to positively impact people's health perception and perceptions of managing their daily lives.

Although the effect of dance on people's feelings and perceptions is not often researched in studies of Dance and Parkinson's, my literature review indicated that dance may improve mood, apathy and depression (Westbrook & McKibben, 1989; Lewis et al. 2014), with positive mood increasing participation in people with Parkinson's (Foster et al. 2012) motivation, and a general sense of wellbeing (Hashimoto et al.,2015). When dance changes perceptions or feelings in people with Parkinson's, it may also support greater self-confidence, self-esteem, in the moving process (Heiberger et al., 2011: Houston and McGill, 2013). In turn, greater movement confidence may promote agency and self-efficacy in people with Parkinson's (McRae

et al., 2018), with potential to shift their identity in the experience of living with Parkinson's.

Enhancing expression through the moving body can give people an immediate sense of freedom, which when constrained by illness, diminishes the experience of agency (Shusterman, 2008). As a Dance and Parkinson's artist, I have noticed that participants with Parkinson's who are new to the dance experience, often find it difficult to initiate or begin to engage in the moving process. This is because the condition of Parkinson's challenges people's ability to move and think, with their delayed response often resulting from negative or confusing thoughts about not being able to move at that present moment in time. People may take time to retrieve and embody movement, with nervousness possibly caused by feelings about being inadequate as a dancer or creator of dance (McNiff, 2003).

Connie writes about how the shared dance experience renewed her confidence and reinforced a sense of change

> As you begin to model movement, my stiff muscles yearn to follow. We sway, wiggle, stretch, and stroke to various musical styles, tempos, and moods. Your smile disguises your professional identity, yet you keep me on track when I introduce distractions. With this concentration, and your quiet questioning and suggestions, I become increasingly aware of my body: its tensions and releases. On reflection, I think that I have been surprised each time to have stood, danced, or walked much more freely. And, I am fully aware that my attitude has improved--even my speech is clearer.

In another encounter, Bob identifies that 'I am quite pleased with myself'. Bob's

movement came out of an exploration where we had been moving towards and away from a wall, by pouring our body weight into the wall's surface, and then pushing off against it. This allowed us to balance on one leg, with our arms outstretched. Yielding to and then releasing from the wall, Bob used movement impetus to travel across the room. In this action, he was able to use large strides and even rotate whilst crossing the room. This dance sequence came from Bob's own movements and illustrates self-efficacy and agency in the one to one dance process. Bob shared that 'I achieved that myself. I'd gained something that I'd done. An achievement for me because I'd never done anything like that before'. Bob also felt a sense of achievement, when moving in standing. Here, we explored a series of different swinging arm movements. These combinations supported lateral weight shifting, and movement into space, and are similar to those explored in Contemporary dance technique. Bob found enjoyment in 'swinging arms…there's four or five different patterns. And I like that'.

Often research participants expressed uncertainty in their ability to manage everyday life at home. Rather than experiencing the home as a safe environment or safe holding space for everyday life, participants worried about the possibility of falling, having to climb staircases, or turning around in a small space. My sessions with Angela (D) would often start by her recalling how many times she had fallen since our previous session. She would describe her inability to turn successfully in the kitchen, so that she ended up falling and banging her head and other body parts on the cooker or fridge. Bob shared how at one time, he had frozen on his staircase, and eventually managing to sit on a step, waited a long while for his wife to return home. Barry struggled to walk from room to room, as did Connie and Mick. In these ways, people's movement

control, capacity to move, and movement confidence was reduced, as was their ability for self-expression in their immediate environment, with impact to perception and thinking.

Participants also worried about the effect of their health condition on their partner as the main caregiver, with caregivers often exhausted and anxious with the daily challenges faced when looking after a loved one with Parkinson's. Another area of concern for some research participants was the fear of their condition worsening and as a result having to move into a care home where they might feel isolated and lonely. Their anxiety was that family members might support this decision if the person with Parkinson's fell often or started to experience other symptoms such as urinary problems and speech deficits. Some related experiences of falling or cognitive challenges which they had not shared with family members. Prior to visiting the Parkinson's nurse or specialist, some participants would also practice the movements that they might be asked to perform in their assessment, such as movements which required intricate finger sequences, or make efforts to know their birth date and place or the name of the current prime minister if they were being checked for symptoms of Dementia. These instances were often shared in jest, with undertones of anxiety evident through their words and gestures.

Houston (2019) reminds us that through participation, the arts give us an awareness of another's difficulties, so that we can develop a meaningful response to their life challenges. In my inquiry, one to one sessions became an safe holding space for movement, with the dance encounter connecting me to participants with Parkinson's.

The dance process also supported research participants in having a wider sense of space, a felt awareness to their moving bodies, and the ability to make decisions when enacting movement. In this respect, Chapter Four contains examples of the way that one to one somatically informed dance practice supports participants in their home environments to achieve a greater sense of agency or freedom.

As a parallel to the experiences of my research participants, Houston and McGill identify how prior to the dance class, participants with Parkinson's reported that they felt lonely, with their physical or mental health challenged. After taking part in the ballet classes at the ENB, their responses had shifted, with their feeling states described as ‘happy’, ‘joyous’ and ‘uplifting’. (Houston and McGill, 2013:113). Dance instilled an ‘emotional significance and connection’ (ibid:116) and enhanced people’s confidence and self-efficacy, both elements which might affect movement agency and agency in the daily activities of living with Parkinson’s.

In their Dance and Parkinson’s project at the ENB, Houston and McGill (2001) identify how participants talked about freedom in different ways: freedom of expression, freedom to fail, and freedom from being labelled by their disease. In 2013, they argue that one of the most important benefits of the Dance and Parkinson’s dance class is that it supports participant’s self-expression and ability to communicate with others, with self-expression affording agency in people with Parkinson’s. In agreement, Niamh Dowling (2013:127) contends that the expressive and imaginal movement of dance allows people to ‘come alive in body and mind’, with dance

instilling a sense of freedom. Likewise, Leventhal[55] stresses the importance of finding freedom in the movement for participants with Parkinson's. Unlike exercise, dance is not just an activity for people with Parkinson's, but as an art form 'an essential portal for them to experience what possibilities were still available to them. It became a way of accessing their true selves — who they were as people rather than as patients'.

In 2019, Houston also refers to the freedom experienced by Dance and Parkinson's class when dance supports the feeling of fluidity or 'looseness', with research participants in my project Home Performance also confirming these findings. Like my research participants, Houston (2019) contends that people with Parkinson's experience a sense of freedom when they have potential to control their movement. Another aspect identified by Houston is dance as support to social freedom, with people less inhibited by their Parkinson's condition. Social freedom enables people to transcend their experience of living with Parkinson's.

In my inquiry, a research participant Peggy indicates her feelings of liberation through an authentic movement response. Peggy began moving with a small heart-shaped stone as a way into her dance. Sitting opposite each other, we entered into a witness and mover relationship, with the following passage my reflection on this process:

> Peggy was moving with her eyes closed. I felt peace and love from her tender, beautiful movement as she brought the stone towards her own heart. Peggy's experience of the moving with the heart stone was that; "It was a little bird trying to get out of its shell, and it needed a bit of help. So, if I massaged the egg it would work, but I had to watch it didn't break. I had to handle it carefully and I was helping it to get out of the egg. I could see its little head

[55] David Leventhal in interview with Ruthann Richter (2017).

> and beak, but it just couldn't get any further…. It was a Bluebird…. And then it came out of the shell and over to you".

Previously, Peggy had spoken about her feelings of frustration and limitation, describing Parkinson's as "the jail corner' which 'puts you there. Stay there!". She expressed that "I don't want them four walls". This is because life before Parkinson's had been so different for Peggy, with enjoyment found in working, bringing up a family, being a Girl Guide leader, and taking on hobbies such as drumming and fly fishing. Her response to living with Parkinson's was possibly held in the metaphor of freedom, found in dancing, and symbolised by the bluebird.

McRae et al., (2013) found that improved mood, an increased sense of wellbeing and an increased sense of accomplishment were the most important variables when measuring the impact of physical and psychosocial functioning in people with Parkinson's. Participant data also indicated that, as a result of dancing, class members were more likely to feel confident in daily activities and other activities outside the dance experience. Factors which were most significant for increasing self-efficacy were belonging to a community, having fun, making new friends, and enjoying learning new things. These results parallel McGill's findings (2016), where research participants identified that the dancing experience enabled them to learn something new, with the social aspects of class meaningful to participants and a factor affecting class attendance. McRae et al., (2018) concluded that motor functioning may be linked with improved quality of life because it supports a sense of self-efficacy in the

Parkinson's population. Similarly, it may also be possible that focusing on increasing self-efficacy through dance may be an effective way to improve their quality of life.

Concluding this chapter, I refer to the work of Daria Halprin (2002) who reminds us that the early 20th century dance and somatic practitioners Rudolf Laban (1879-1958), Margaret H'Doubler (1889-1982) Mabel Ellsworth Todd (1891-1969) and Irmgard Bartenieff (1900-1981) viewed dance as a creative learning process in which an individual could understand themselves through an exploration of their sensed and felt experience, with dance acting as a process of change which had potential to support health and health perception. As a creative process, dance supports self-expression because it stimulates the imagination, encourages dialogue with internal felt experience, and supports freedom through personally embodied movement. All these factors increase self-efficacy and agency, with the creative impulse to move, fundamental to the experience of being human.

Chapter Four

One to one Dance and Parkinson's practice

4.0 Introduction

One to one Dance and Parkinson's practice is relational, with the somatically informed dance artist and people with Parkinson's co-creating practice in the home environment. With therapeutic potential, its orientation is towards supporting health and promoting change in people's perceptions of living with Parkinson's.

Whilst my one to one Dance and Parkinson's practice sits within the framework of community dance and dance in community health, the relational practices of my somatically informed dance project align it to the field of DMP. I highlight some of the key differences that separate these discreet areas of inquiry and locate areas of convergence. Discussing the key elements of my one to one Dance and Parkinson's practice, I illustrate how like the DMP, my practice is person-centered and underpinned by processes which support presence, attention, attunement, and awareness.

I examine the intersubjective nature of my one to one Dance and Parkinson's project as a co-creation of meaning, understanding, and practice.

Comparing one to one practice with the Dance and Parkinson's practitioners David Leventhal, Pamela Quinn, and John Argue, I identify key aspects of their work and compare our different, but related approaches to one to one practice.

Lastly, I introduce the eleven participants in my one to one Dance and Parkinson's project Home Performance and identify research findings that are shared by all.

4.1 Community dance, Somatics, and DMP.

The earliest dance therapists valued the expressive aspects of their art form over the therapeutic relationship. Through the formation of the UK based Association of Dance Movement Psychotherapists in 2004, dance therapists became more closely aligned to the field of psychotherapy. DMP emerged as a new body of work, a move which distinguished the dance therapies from dance (Karkou and Sanderson, 2006). In practice, DMP's aim to engage clients in a creative process which furthers their emotional, cognitive, physical, and social growth and integration. They highlight their client's artistic interests above their own, with the intention of using dance as a process for developing psychological and therapeutic change (Meldrum, 1994). To support this process, DMP's are required to under-take their own therapy whilst training and must engage in continuous supervision during their working life.

Within the field of community dance, the 'arts in community health' is an identifiable strand of practice. Houston (2019), cites Mike White, the medical humanities scholar, as the key proponent of the arts in community health which aim to support 'the experience of well-being among people who are in poor health, or at risk of it, by means of communal involvement in creative activities' (White, 2009:1). Working through their art form, community dance artists aim to support the physical, mental, emotional, and social health of people in their communities. Contending that positive

health perception emerges as a result of people's participation in the artistic process, community dance artists echo the work of earlier DMP's. Sara Houston (2019:39) contends that the practice of Dance and Parkinson's broadly complies with White's definition of the arts in community health and advocates for this perspective in taking community-based Dance and Parkinson's practice forwards.

Whereas DMP's acknowledge the therapeutic potential of dance, dancers often enable therapeutic experiences without directly setting out to do so (Karkou & Sanderson, 2006). Rather than aiming to explore the processes which promote psychological change, dance artists tend to avoid potential distress in their participants by focusing on the joy of dancing (Meekums, 2002), with the concept of 'joy' fundamental to Dance and Parkinson's programmes including the largest project Dance for PD®.

Linking the fields of dance and DMP, Bonnie Meekums (2000) identifies the importance of the New Dance movement for the development of DMP. This is because New Dance artists questioned idealised versions of the body presented in some dance forms and the exploitation of the body in others, with the body a site for socio-political investigation. Similarly, the works of Rudolf Laban[56] provide a common connection between dance artists, DMP's, and somatically informed practitioners.

Based in the field of dance, but reflecting many of the elements of DMP, somatically informed dance artists/movement educators/ therapists work in community settings

[56] Rudolf Laban (1949,1975).

and are often positioned as creators of the arts in community health. The art form of dance is central to the interest of the somatically informed artist, with new or novel movement practice directing people's internal and external awareness of the moving body through its creative and artistic components.

There are subtle differences between somatically informed dancers, educators, and therapists. Often somatically informed dance artists hold all three perspectives in their work. These different aspects are highlighted through the professional membership of ISMETA. My understanding is that a somatically informed dance artist can operate at different levels. Accreditation through an ISMETA approved training programme and 500 hours of community-based practice progresses the dance artist to the role of somatic movement educator, with therapeutic potential gained through additional training or through longitudinal and emerging praxis which develops and emphasises processes of change.

My somatically informed dance practice encompasses the creative art form of dance, and the roles of the educator and therapist. In relation to DMP, my somatically informed dance practice aligns most closely with practitioners who emphasise artistic/creative approaches in a psychotherapeutic context, rather than conferring with those that are firmly advocates of psychotherapy. It supports health in the whole person through the process of dancing and often through shared dyadic dance processes such as one to one Dance and Parkinson's practice. The somatically informed dance artist aims to support the physical, cognitive, and emotional aspects of the person through embodied processes which aim for integration and which recognise

holistic perspectives of the body and health. Hayes (2013; 23) brings our attention to the fact that even within these practices there still may be a tendency to work within a framework of separation, since an:

> intentional focus upon anatomy and body systems aims to develop awareness of the body part or system. But there is a split in this process and an identification of awareness as thought…this process is simply a manifestation and consolidation of a split between body and mind.

DMP's regard physical wellbeing as a fair reflection of psychological health (Karkou and Sanderson, 2006). In this respect, Jill Hayes (2013: 24) confirms that 'contemporary psychotherapy is now beginning to take seriously the relationship between body and mind…and there is increasingly more emphasis on finding a core somatic self in the process of therapeutic growth and change' (Corrigall, Payne, and Wilkinson, 2006).

As with the practice of DMP, the somatically informed dance artist often works to create change through 'active' relationships, although in a one to one context, these are principally with self-responsible individuals. The term 'active' refers to the practitioner's intentional use of art making in the therapeutic process (Karkou and Sanderson, 2006). Like the DMP, somatically informed dance artists adhere to strict ethical codes, with supervision recommended rather than obligatory.[57] DMP's are not specifically qualified in touch-based movement practice (Eddy, 2017) which is an area

[57] I am a registered somatic educator and therapist with ISMETA based in the USA (International Somatic Movement, Educator, and Therapist Association).

of exploration for the somatically informed dance practitioner who is accredited as a movement educator/therapist.[58]

The DMP is often involved in supporting people's mental health (Karkou & Sanderson, 2006), with practitioners using a wide definition of dance when addressing the emotional lives of clients, including people living with dementias. Because of their training and interest in movement, the somatically informed dance artist may be drawn to working with people who experience physical challenges through illness alongside mental health, such as people living with Parkinson's.

The condition of Parkinson's comes under the umbrella of dementias, with an estimated 60 percent of the Parkinson's population developing symptoms of Dementia overtime (alzheimers.org.uk). Confirming current evidence-based research into Dance and Parkinson's, The Cochrane database, and NICE reviews (2020), indicate that the condition of Parkinson's affects mental as well as physical health. Although there are fewer studies exploring DMP with people with Parkinson's, dance therapy is reported as an enjoyable body-mind intervention for people with Parkinson's (Michels et al., 2018). Jill Bunce (2002), establishes how the psychiatric features of depression, psychosis, and dementia run in parallel to physical symptoms of Parkinson's, with Bunce's research further highlighted in the body of my inquiry.

The links between dance and DMP practices for people living with Parkinson's and Dementia are not often examined, although many community dance artists and

[58] As a somatically informed dance artist, I am also a qualified somatic movement educator and therapist with ISMETA.

somatically informed dance practitioners, including myself, work with people who live with Parkinson's and Dementia.

Although not part of the remit of this thesis, some observations of group dance practice are that participants with Parkinson's and Dementia respond well to musical and body rhythm, repetition, and changing movement dynamics. With all groups, improvisational processes and the use of props develop communication and social integration. My Dance and Parkinson's sessions include in-depth movement content through seated, standing, and travelling sequences. There are opportunities to explore wider spatial patterns than the holding circle, with improvisation and verbal auditory cueing, discussed later in my thesis, central to practice delivery. With people with Dementia, movement patterns are often less complex and delivered at a slower pace. In a community context, groups are often held within a circle to ensure safety. In care homes, I have worked with people seated in lounges and in specialist dementia care settings, where the opportunity for movement interaction in different spatial environments is more diverse.

In my limited experience of working one to one with people living with Dementia, I have worked with a female participant for an hour each week over approximately an 8 week period.[59] In our one to one sessions, we explored improvisational movement through the use of mirroring, with music helping to shift the content, dynamics, and meaning of our movement. Visual artefacts were created from props which we had used in our dances as a process of devising meaning through a shared relationship to

[59] I worked one to one with a female participant with Dementia at the Neurodropin Centre, Lancaster.

objects. These sessions inspired me to explore the home environment, and the objects within it, in my one to one Dance and Parkinson's project.

In my investigation of one to one Dance and Parkinson's practice, I echo many of the practices explored by DMP's in dyadic movement encounters. In the next sections I define and explore these movement practices which support my one to one dance practice with people with Parkinson's. To begin with, I examine the importance of adopting a person-centred approach to practice, now discussed.

4.2 Person-centred dance practice.

One to one Dance and Parkinson's practice is underpinned by a person-centred approach. The term 'person-centred' originates from Carl Rogers' psychotherapeutic practice (1957;1961). Rogers sought authenticity or congruence between the client and the therapist, an acceptance of the other through unconditional positive regard, and a desire for empathetic understanding in which the therapist sought to perceive and articulate the feelings of their client as if they were their own.

My research understands the term 'person-centered' as developed by Tom Kitwood and Kathleen Brendin in dementia care research (1997).[60] Person-centred dance practice aims to connect with the person behind their illness, or label of Parkinson's,[61] and recognise the creative potential in each individual (Rogers, 1957; Coaten, 2009;

[60] Tom Kitwood and Kathleen Brendin 'Dementia Reconsidered: the person comes first' (1997). See also, the work of Brooker (1995), Cheston and Bender (1999), Goldsmith (1996), Kitwood and Bredin (1992a, 1992b), Killick (1997a, 1997b), Killick and Allan (1999), Kitwood (1997a), Marshall (1998), Perrin (1997), Rader (1995 cited in Brooker 2004), Sabat (2001, cited in Brooker, 2004), Stokes and Goudie (1990), Wilkinson (1993) and others in the 1980s and 1990s.
[61] Reference made to Sara Houston (2011)

Hayes with Povey, 2011). Person-centred dance practice values peoples' 'personhood', defined as 'a standing or status that is bestowed upon one human being, by others, in the context of relationship and social being' (Kitwood, 1997:8). For people with Parkinson's, everyday life can often invalidate human potential and personhood, causing anxiety, low self-esteem, and self-doubt. For instance, people with Parkinson's may be perceived as being drunk when members of the public fail to recognise the de-stabilising symptoms of their condition.

Somatically informed dance practice is person-centred, where people with Parkinson's are the focus and 'prime movers' in the one to one dance process (Fraleigh, 2018). In my dancing relationships with people with Parkinson's, I aim to engage with the person as well as their condition of Parkinson's, with person-centred improvisations valuing human diversity (Whatley, 2019).

Like the Parkinson's movement coach Pamela Quinn (2017), I aim to discover 'what makes this person tick' with the intention of 'trying to figure out who they are'. As with David Leventhal, my practice is based on a 'person's request' with all clients being 'quite different' (Leventhal, 2017). This allows me to explore different ways of relating to participants through dance, music, and props, to respond to their individual movement patterns, their concerns, ideas, and interests. Some of the factors directing person-centred engagement with people with Parkinson's may be familiarity with the practitioner, the stage of an individual's Parkinson's condition, their previous dance experience, a person's mood, the size of the movement space allocated by participants

in their homes, and anxiety about symptoms caused by this long-term condition such as the inability to walk, stand, or turn confidently.

As well as relating to each person in their experience of living with Parkinson's, person-centred dance practice offers participants the potential to transform. Although temporarily experienced, their dancing bodies may feel released from the limitations of their Parkinson's condition. Responding to their partner with Parkinson's, the dance artist explores new movement approaches and strategies, with both dancers having potential to forge a shared and meaningful dance aesthetic. In a Skype interview with David Leventhal (2017), I discuss the person-centred and transformational nature of dance with people with Parkinson's:

> Mel: I've noticed in 1:1 work, everybody dances differently in their houses, and we create a body of work in that room. I find that quite interesting, you know, that I might be using similar movements, but they're put together in different ways, for different people. So, it's like we create our own mini-dance, ballet, or whatever you want to call it, as we're going along, which I find very interesting.
>
> David: Absolutely. It does become a whole Ballet in its way. It's great. It's been a very interesting journey, and also, sort of seeing that transformation, really thinking about the overall experience, and not being so worried about, I guess, taking people along for the ride. I think it's just trusting that they will come along for the ride, without knowing all of the stops along the way. I think that that's something that's changed in the teaching pattern. Like, "Let's explain everything you're gonna do. Everything's that gonna happen to you". And then you know...now, it's like just: "Trust us. Come along for the ride. You're gonna have a great experience".

Creating dance practice which is built on trust and safety may help to build 'confidence that some security will remain even when so many things are changing,

both outside and within' (Kitwood & Brendin, 1992:283).[62] The one to one practice is based on trust, with non-judgmental dance processes recognising and valuing individual experiences. As a powerful mode of non-verbal communication (Stevens & McKechnie, 2005) one to one dance practice also requires the cultivation of presence, attunement, and attention, which leads to greater awareness and understanding for the dance artist (Schmitz, 1993; Kitwood, 1997)**.** Support in and through the moving body and between moving bodies often emerges through the unspoken elements of dance practice, explored in the following section.

4.3 Presence, attunement, attention, awareness.

Maintaining presence, or an awareness of ourselves at the same time as connecting to another person is an essential skill facilitating one to one dance practice and an integral part of the holding process (Sondra Fraleigh, 2015). Success is determined by 'how we are in our self and the relational field we create with our presence' (Tufnell, 2010). For Siegel (2007) presence is our capacity to be open to what is happening as it happens, requiring the dance artist to situate themselves with 'wide attention' and to employ the process of 'active listening' which incorporates the skills of 'noticing' and 'attention'. The skills of active listening and noticing help the practitioner to attune with their dancing partner and support a safe holding space (Tufnell and Crickmay, 2004).

From the Latin 'attendere', meaning 'to give heed' or 'stretch toward', attention is

[62] See also Arthur Frank (2013:7) cited in Sara Houston (2015:31), when he writes about the possibility of people with Parkinson's reclaiming their sense of being a person, rather than a patient.

‘fundamental to the capacity and capability for building relationships to self and others’ (Gold, 1992; 1993). Attention is focused on those moment to moment bodily changes which are implicit in dance as an embodied and improvisational process, with improvisation primarily an attentional practice (De Spain, 2003). Attention is concerned with executive functioning, an area which diminishes in people with Parkinson’s. Thus, working with attention or movement awareness is not only important for the dance artist, but also an important skill for the Parkinson’s population. This is because ‘capturing attention is the first step in moving towards change’ (Olsen, 2014:228). Discussing attention, Adrian, a research participant reflects on the benefits of one to one practice. ‘It’s much easier than being in a group because in a group everyone is trying to follow everybody else. Its better concentration one to one. I’ve just got to concentrate on you, and not the other people as I look around’.

Modelling practices of attention and awareness, my aim is to remind my partner with Parkinson’s of ‘what it’s like to be a body, rather than to have a body; to remember all the different kinds of experiences we hold in our physical being’ (Greenland, 2000:33). Like Sondra Fraleigh (2018), my aim is to not only guide, but also invoke self-awareness and self-guidance in my partner with Parkinson’s.

Attunement happens when the dance artist comes into harmony with themselves so that they can cultivate a sensory sensitivity towards their partner, an act which then establishes balance in dancing relationships (Johnson, 2004). Like the dance artist and

somatic movement educator Lisa Dowler,[63]I draw on my knowledge and experience of somatic movement dance education which helps me to attune to my partner's so that I can bring their 'quality of wellness to the fore' (Lisa Dowler 2017:192).[64] Similarly, working with embodied communication, I mirror the work of the DMP Richard Coaten in Dance and Dementia studies, because going by way of the body (Coaten, 2011), I aim to create new bridges of understanding between myself and people with Parkinson's (Coaten, 2009). Discussed later in this chapter, the relational processes of Matching and Mutual Witnessing support attunement to one to one dance practice.

Practices of presence, attention and attunement bring awareness, selfcare and mindfulness to one to one dance practice, resourcing participants. This is because 'when we strengthen awareness in our body we feel connected - our often fragmented sense of self becomes more whole' (Collinson, 2015:235). In the study of one to one Dance and Parkinson's practice, as well as continuing my own movement practices at home, in yoga class, or when walking, I prepare for participant visits after travelling long distances by car. I arrive early for each session, taking the time to park nearby and focus my attention by noticing my breath. I might make a short, meditative walk with my awareness of my weighted relationship to the ground, or an open sense of my surroundings. I choose to put aside thoughts associated with personal or working life, with the intention of returning to them later.

I practice in this way, because an ethical care of self translates into an ethical care of

[63] Lisa Dowler Dowler who uses improvisation, movement, and touch in embodied dance relationships with children at Alder Hey Hospital, Merseyside.
[64] Lisa Dowler with Kelly Rixon 'Harry: the story of a child in hospital' in Miranda Tufnell (2017).

others (Fortin et al., 2009). In one to one dance and Parkinson's practice the dance artist and person with Parkinson's are not separate from each other or their environment of connection. Rather, they exist as a self-plus-other-plus-environment (East, 2019). Here Alison East (2019) references J. J. Gibson's (1979) ecological basis for perception, where there is a mutually receptive exchange between self, other and world, with the idea of sharing the dance at the heart of one to one Dance and Parkinson's practice. This ethical framework echoes the feminist thinking of Karen Barad explored in my research methodology as well as the research and practices of the somatically informed dance artist Ann Cooper Albright and the DMP Beatrice Allegranti.

In the psychological theory of self-determination (Deci & Ryan, 2000, 2008), one of the basic needs is for people to feel and think that they belong or are connected to others, and that they can experience a sense of relationship. In my inquiry, developing new ways of relating to themselves, other people, and their surroundings, one to one dance practice offers an approach to self-care for people with Parkinson's. One to one Dance and Parkinson's practice supports self-care, with self-care tied up with agency. This is because self-care and a sense of agency are formed in relationship, with the person with Parkinson's supported by the dance artist to experience 'a new relationship to oneself and to others: sensing one's actions, knowing one's feelings, no longer considering oneself as an object, but as a creator of one's own life' (Guimond, 1999: 6).

4.4 Sharing the dance: the intersubjective experience.

To date, research into the efficacy of shared dance as health support for the Parkinson's population has often focused on partnered, social dance forms, such as Tango and American Ballroom, with dance improving balance in this population.[65] In particular, the external cue of a partner enhances balance because even light contact with the hands facilitates postural stability (Hackney & Earhart, 2009). Sophia Hulbert[66] contends that in this context, partnered dance provides multisensory information for people with Parkinson's, with positive effect to their movement initiation (Morris, 2000). This is because together with a partner's verbal direction in the form of instruction and encouragement, shared physical movement offers visual, proprioceptive, and tactile stimuli. Cues from partnered weight shifting in Tango, also help to 'initiate movement, and increase or maintain stride length and cadence' (Hackney & Earhart 2009:480), with people with Parkinson's also benefiting from another's movement guidance when walking towards their partner (Hackney & Earhart, 2009).

In my study of Home Performance, I explore my shared and co-created dancing experiences with people with Parkinson's in a one to one context. Grounded in the material body, the intimate encounter of one to one Dance and Parkinson's practice confirms the ontological position of my research as one of relationship, and one which creates a space for an intersubjective and empathetic connection (Hayes, 2013). Additionally, the embodied and performative interactions of co-creative dance practice

[65] See Earhart, 2009; de Dreu et al., 2012, 2014; Sharp and Hewitt, 2014; Shanahan et al., 2015b, for studies illustrating Tango and American Ballroom as positive interventions on balance for PwP.
[66] Sophia May Hulbert PhD thesis (2015) Dancing with Parkinson's – An exploration of teaching and the impact on whole body coordination during turning.

supports the changing perceptions of both dancing partners, with my investigation examining the effect of dance as a shared corporeal meaning-making process and a process of embodied knowledge production (Allegranti, 2013; Cooper-Albright, 2001, 2013). The dance artist and person with Parkinson's are tied to each other's lives, affirming that identity arises through a process of mutual recognition (Allegranti & Wyatt, 2014). In this respect, my one to one practice echoes Jacques Derrida (2003:117)[67] who claims that 'we are only ever ourselves from that place within us where the other, the mortal other, resonates'.

Intersubjectivity is dialectical, referring to the enactive space or field between the subjective experiences of two people (Coaten, 2009)**.** As research practitioner the intersubjective dance encounter leads me to the edge of my knowledge and expertise[68] and closer to an understanding of my partner with Parkinson's. I recognise that in the beginning stages of shared dance practice, the 'first moves of any new partnership are rarely smooth, but we must take that chance and ask an "other" to dance' (Albright, 2013: 238-239). Research participants support my confidence in developing and performing practice. For instance, in a one to one session Adrian explains why he enjoys dancing together: "It's better than doing it (movement) on your own. I re-vitalise. It makes me feel good…the whole thing is useful". Overtime, our shared dance becomes part of the common field of each other's lives (David Abrams, 1996), and we notice how the dance is 'no longer simply inside ourselves but coming alive and growing between ourselves and another' (Tufnell and Crickmay, 2004). Like

[67] Jacques Derrida (1930–2004) was the founder of "deconstruction," a way of criticizing not only both literary and philosophical texts but also political institutions.
[68] See Elsa Urmston and James Hewison (2014)

Marina Rova (2017), I have found that embodied relational dance can be cultivated, with the familiarity, with established relationships playing an important role in developing kinaesthetic empathy.

Referencing feminist and somatic perspectives in my research, and supporting the idea of dance as an emergent and ongoing process through a Deleuzian perspective, Garrett Brown (2007) describes the intersubjective movement encounter as an unfinished and ongoing project, which as a:

> series of momentary meetings, mergings, and interrelations between self and "other" conceptualised as individual or environment, offers subtle shifts and changes in the individual's first person perspective [from the soma] of self, thereby experientially demonstrating subjectivity to be a process of becoming, non-monolithic and wholly embodied (Garrett Brown, 2007: 100).

Through the intercorporeal exchanges of our one to one Dance and Parkinson's practice, the understanding of the somatically informed dance artist, the experience of the participant, and dance praxis unfold moment by moment in the act becoming, with this perspective aligning my study to the theorising of subjectivity advanced by Braidotti (1991, 19992, 1994, 2002) and Grosz (1994a, 1994b, 1995, 2003).

In dance, intersubjectivity denotes an embodied participation of shared kinaesthetic patterns (Samaritter and Payne, 2013). A dyadic engagement, the aim of shared dance encounters is to form a better understanding of and an identification with another person (Banes, 1977, 1979). Attuning through dance, both people feel the kinetic

qualities of their own movement patterns and those of their partner (Fuchs & Gamblin, 2009; Tufnell & Crickmay, 1990, 1993). Since we are inherently built for movement, and the way we perceive the world directly informs our actions (Claxton, 2015), the more attuned and attentive we are to our own embodied experiences, the more certain we are of being present to and aware of seeing and understanding others (Rova, 2017). The act of seeing and understanding others is expressed as empathy**,** with empathy concerning the 'feeling felt rather than simply being seen, heard, or understood' (Sharon Stanley, 2016: 105).

4.5 Empathy and Kinaesthetic Empathy.

Referring to Edith Stein[69], the phenomenologist Jaana Parviainen (2003) describes empathy as an act of knowing and one which entails a re-living or a placing of ourselves 'inside' another's experience. The English word 'empathy' originates from the Greek 'empatheia' which contains the terms 'em' (in) and 'pathos' (feeling). The Greek version clearly demonstrates the intersubjective state of being in somebody else's feelings. In Chinese, empathy literally means 'the same sensation/feeling'. (XiaoChuan Xie, 2020).

Jill Bennett (2005) considers empathy in terms of 'affective encounter' rather than 'emotional identification'. She argues that to be 'affected' is to be moved in an embodied rather than a cognitive sense, although embodied interactions may trigger

[69] In 1917, the phenomenologist Edith Stein (1891–1942) examined the idea of empathy. Her work contains original approaches to empathy, embodiment, the emotions, personhood, collective intentionality, and the nature of the state.

cognitive judgements (Reynolds & Reason, 2012)**.** For Bennett, empathy develops kinaesthetically, with Deidre Sklar emphasising the embodied intersubjective nature of kinaesthetic empathy which involves the 'capacity to participate with another's movement or another's sensory experience of movement' (Sklar, 1994:15-16).

Examining intersubjectivity as a means of supporting empathy, Marina Rova (2017) makes clear that whereas direct perception theory explains how embodied enactment relates to immediate embodied knowing arising in relationship (Gallagher, 2008), embodied simulation theory identifies how neuronal representations underpin our perceptions of and interactions with others (Gallese, 2003; Gallese, Keysers, & Rizolatti, 2004). Examining neurophysiological processes, Rova attributes both theories as fundamental to inter-corporeality, a concept understood as 'a body-schematic reverberation that depends on the close intermodal connections between visual perception, kinaesthetic-proprioception and motor behaviour' (Gallagher, 2007: 287).

Findings from neuroscience suggest that mirror neurons play an important role in developing kinaesthetic empathy (Berrol, 2006; Calvo-Merino, Grèzes, Passingham, & Haggard, 2006).

4.6 Mirror neurons

Mirror neurons involve perception-action coupling. Through brain imaging in macaques (Rizzolatti et al., 1996; Gallese & Goldman, 1998) neuroscientists

discovered that mirror neurons[70] are activated both when a person performs an action or when he/she observes the same action being performed by someone else. At a motor level, there is an interaction between visual perception and cognition (Calvo-Merino et al., 2005, 2006). Watching another person dance produces a 'sympathetic response of similar muscles and/or motor neuron pathways' (Batson & Wilson, 2014).

For professional dancers, movement vocabulary and technique can be extended in the act of watching the performances of other dancers in motion, with movement acquisition having a recursive relationship to the dancer's way of moving (Roche, 2009). This is because neuronal pathways laid down in the course of dancing and other physical activities over several years, are more likely to be retained and remembered than those acquired through cognitive and intellectual pursuits (Coaten, 2009:).[71] In other words, the body stores movement memories (Bainbridge Cohen, 2012; Juhan, 2003). Once a dancer has mastered specific movements, these are understood neurologically and remain as traces or sensory engrams central to the development of body schema. In this way, dance training heightens the perception of dance movement (Davies, 2013; Calvo- Merino et al., 2005, 2006) and proprioception (Montero, 2006, 2016).

As previously highlighted, proprioception diminishes in people with Parkinson's. And so, participation in dance might enhance proprioception and support people's movement potential. Additionally, Houston (2019) identifies that watching

[70] Giacomo Rizzolatti and team began brain imaging of motor neurons in 1988 and first identified mirror neurons in 1996.
[71] See Brandt and Rich (1995) for a detailed examination of memory studies.

professional dancers in action, and witnessing the ease and flow of their movement, possibly enhances the mirror-neuron response in people with Parkinson's, with positive effect to proprioception and movement. In this way, mirror-neurons are an important part of creating connections through dance.

4.7 Mirroring

Adrian, a research participant, commented that "we're like a mirror image of each other". Originally pioneered by the dance therapist Marian Chace as a relational and therapeutic intervention through non-verbal relationships,[72]'mirroring' developed as a technique in DMP for responding in embodied and emotional ways to what another person is experiencing (Levy, 1992, cited in Shustik & Thompson, 2001: 53). Quite different from mimicry, mirroring is an experience of emotional and embodied attunement. In DMP, mirroring enables the therapist to share some of their client's emotional experiences which cannot be communicated through words alone (Bergson, 1889:16,18). A form of non-verbal body resonance, 'mirroring attempts to make genuine contact with another person without any form of coercion or pressure onto the other person' (Coaten, 2009: 106). Mirroring supports empathy when the movement of a person is echoed by a therapist. This is because 'answering movement in similar forms dissipates the feeling of apartness' (Chaiklin and Schmais, 1986).

In group Dance and Parkinson's practice, mirroring is often used to initiate and support movement in participants, with the mirror neuron theory having significance for this process. Losing the ability to feel their bodies accurately, people with

[72] Marian Chace (1896-1970) was a dancer and dance therapist (Chaiklin and Schmais, 1986).

Parkinson's often rely on vision and cognitive strategies to carry out the simplest movement (Batson, 2009). Mirroring is important because as Bill, a research participant, explains; "the other person's body moving helps you keep in time".

Recalling movement from memory is challenging, so that mirroring another's dance provides an immediate pathway to movement action. The presence of the professional dance artist performing and embodying a range of movement dynamics has significance for supporting movement and connecting motion with emotion in people with Parkinson's (Houston, 2019). In the dance class, people's ability to mirror may develop through sessions, and overtime, as they learn to mirror more complex sequences through repetition, variation, and dance as a form of call and response. Overall, the process of mirroring is thought to increase participation[73] and reduce social isolation.[74]

Bek and Poliakoff (2016) contend that compared with physical practice or action observation alone, imitation through mirroring is associated with increased neural activations and greater effects on motor learning in healthy adults. This is also the case for people living with stroke (Buccino et al., 2006; Lee et al., 2013; Small et al., 2012), and cerebral palsy (Buccino et al., 2012). Here, their use of the term 'imitation' is quite different from mimicry, since it is a more sophisticated and deliberate means of recreating an action through attention to movement quality, delivery, pulse, or phrasing.

[73] Chapter One previously cited Foster et al., 2013; Duncan and Earhart, 2011; Sabari et al., (2015).
[74] Chapter One previously cited Hackney and Bennett (2014).

In one to one Dance and Parkinson's practice, I explore mirroring as a way of relating empathetically to my partner with Parkinson's. In one to one Dance and Parkinson's practice, I focus on my felt sense of moving by attuning to my partner's dance. I aim to notice the subtle changes in my partners movement flow, to mirror and respond to those slight alterations or nuances in their dance that would be imperceptible unless bodily sensed. Through these material intra-actions, I aim to understand my partner with Parkinson's, so that having a clearer sense of where support can be offered, I can act in response to my new awareness. Similarly, my partner with Parkinson's explores newly felt movement relationships, with freedom to engage authentically and make choices within the dance process. Our dancing bodies engage as an intra-action, with intra-action understanding how agency emerges through being in relationship (Barad, 2007: 141).

Beside mirroring, there are other ways in which dance promotes connective and relational possibilities (Batson, 2014; Sheets-Johnstone, 1999, 2011). In one to one dance practice, the felt sense of moving together is explored as participatory sense-making.

4.8 Participatory Sense-making

Explored through the felt sense, an implicit understanding of the other is found when we connect to people's feel, mood, or bodily sense (Preston, 2008). A core theoretical concept and practical approach in somatically informed dance practice and DMP, kinaesthetic empathy is a process of participatory sense making, described as 'feeling with through a movement sense' (Rova, 2017:165).

David Leventhal, the director of Dance for PD® acknowledges the potential for one to one Dance and Parkinson's practice to explore felt and connective relationships between the dance artist and people with Parkinson's, which suggests a spiritual element to the dyadic encounter. His following reflection from a one to one session with a female client captures the spiritual aspect of one to one Dance and Parkinson's practice:

> In one on one sessions, there's a much stronger emotional connection and pull that happens, and kind of think that you can't help that when it's just you and one other person. So just standing across and doing the barre and looking at each other as we do it, listening to music together, I feel her kind of softening. She has a kind of hard edge, a New York shell, but there's a melting that happens, a nostalgic quality. And then again, I feel like her movement is very full at that point.

Although not part of the remit of this thesis, the definitional, conceptual, and methodological problems in using the terms spiritual, or spirituality are acknowledged (Williamson & Hayes, 2012: 4; Williamson, 2010). Williamson argues that somatic practice 'shares so many features in common with current definitions and expressions of spirituality' (Williamson 2014: 163), that in relation to this study of one to one Dance and Parkinson's practice, searching for 'wholeness, health, vitality, integration, balance, and connection' (ibid: 164) is central and 'championed within the holistic spirituality paradigm, as well as within the field of SMDE' (Debenham & Debenham, 2008; Eddy, 2005). The spiritual body confirms that movement shared with another leads to empathetic or compassionate engagement, with compassionate engagement existing through 'core strands of many religions' (Williamson, 2014:176) and located

as a central concept in one to one Dance and Parkinson's practice.

Like the dance artist Miranda Tufnell (2017: 20), I have found that 'as people began to trust and notice more of what they felt in their bodies a gentler rhythm emerged, a quality of receptivity, which opened up the possibility of change at many levels'.

Peggy (2014) echoes this reflection, identifying that:

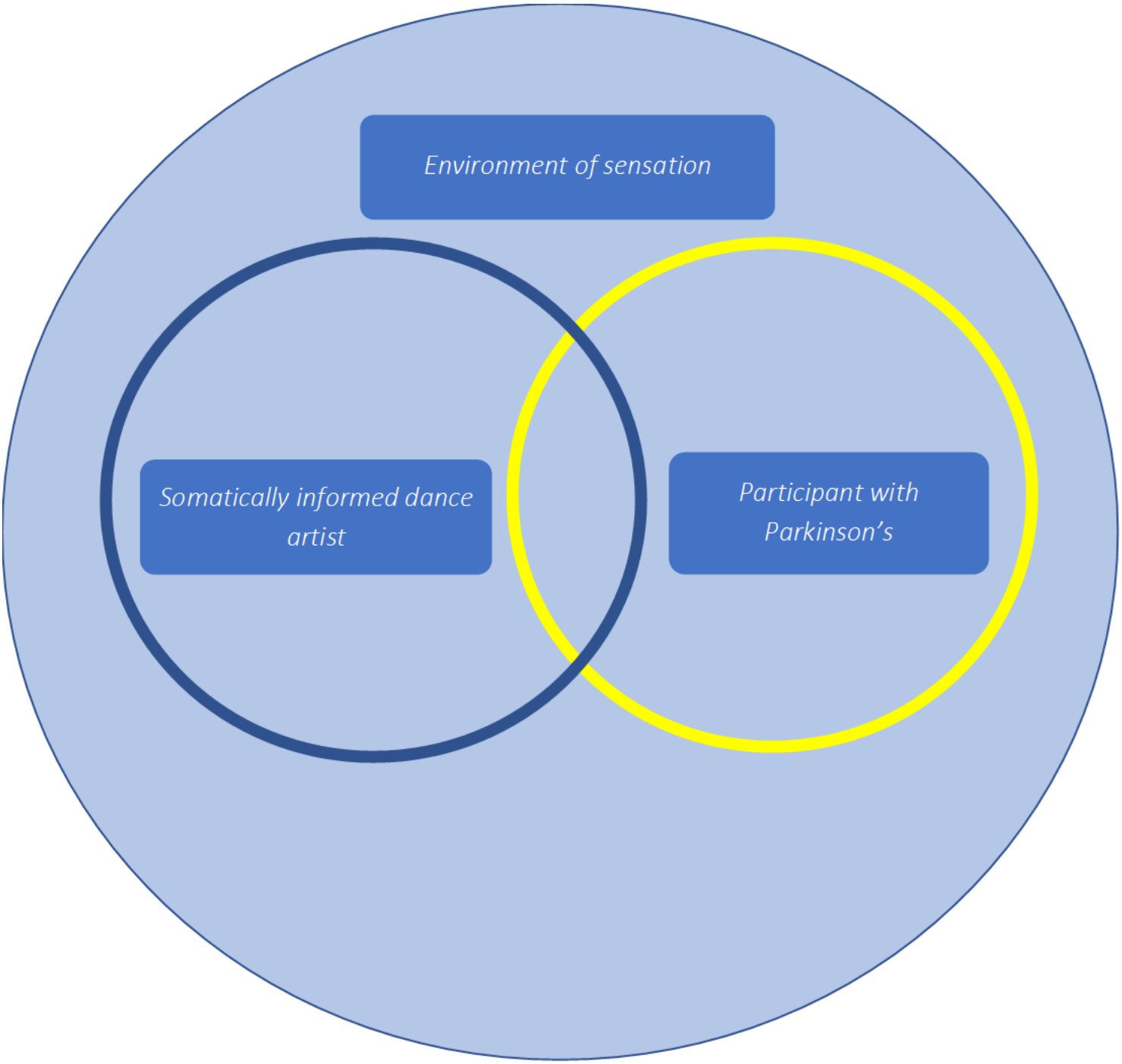
> [u]sing two people, the interaction makes it [dancing] more effective. Someone to do it with. It looks better. There's something to reach out to, like a magnet doing it to you. Your movement helps me and mine helps you. It's easier. Working in fresh air doesn't give you the same 'umph'. I try a bit harder…that sort of thing. It's getting better. The movement is better. I'm putting more into it because we've been together for longer. It's being comfortable with that person. You can't do it if you're not relaxed. You're only half doing it.

The connection-seeking and relation-making process[75] of shared dance making, transcends the boundaries of self and invokes feelings of oneness (Meekums, 2012). Empathy becomes present when I tune into my own sensual or kinaesthetic experience, with this act enabling me to become aware of another's dynamic field of sensation, 'body topography' or 'shaped terrain' (Parviainen, 2003:157). In one to one dance practice, people tune into each other's awareness so that they can release themselves into the flow of dance (Ramaswamy & Deslauriers, 2014).

Depicted in Diagram 1 below, the somatically informed dance artist moves towards a greater understanding of research participants with Parkinson's, with the person with Parkinson's also beginning to become more self-aware, confident and free in the movement process through dance as a co-regulatory dance process (Porges, 2011

[75] Refer to Stafford, 2011.

Diagram 1: The dance artist and person with Parkinson's find connection and flow through the co-created dance encounter in their environment of sensation.



This active process creates a fluid and evolving growth of embodied knowledge (McNiff, 1998), with ‘mutual incorporation’ a process for generating knowledge and understanding (Fuchs & De Jaeger, 2009: 465) and a ‘ring of continuity providing the possibility of transformation and exchange between people’ (Cooper Albright, 2013: 6). One way of exploring participatory sense-making is through the process of Matching.

4.9 Matching

A different kind of self-other relating, Matching requires the somatically informed dance artist to simultaneously attune to themselves before offering guidance or support when introducing new options for movement. Promoting safeguarding when working with clients, a pre-requisite of matching is self-knowledge of movement patterns which are established through experiential practices explored in somatic training. Matching a person somatically, through movement and touch, brings attention to the many possible organisations and patterns of movement.

Matching movement patterns and understanding where these patterns might disassemble in individuals, the somatically informed dance artist notices and becomes aware of the different ways each person moves and has a clearer idea of how to support their partner through tactile-kinaesthetic rapport (Fraleigh, 2007). Matching is an ‘inward conversation of self with other (ibid:26) which requires a total kinesthetic absorption (Fraleigh, 2015). In the process of Matching, the dance artist asks themselves ‘[h]ow can we turn ourselves inside out so that our inner world, the place where we feel, connects with the sentient space of our partner?’ (Fraleigh, 2007: 29).

In one to one Dance and Parkinson's practice, changing movement patterns are supported through structured choreographic dance sequences and in the present moments of dancing together through improvisation. The former, enables me to guide efficient movement through an exploration of functional movement patterns. In the latter practice, I engage with a felt sense of my moving body at the same time as being aware of my partner's actions, as a 50/50 engagement. Effective matching occurs when I work from a place of calmness, with my nervous system inhibited so that I can become more perceptive to the subtle changes of another (Braude, 2015). In one to one Dance and Parkinson's practice, I notice contrasting moments of flow and hesitation, a feeling of ease or difficulty in my partner with Parkinson's. I guide and support movement through our kinaesthetic engagement and touch-based somatic practices.

4.10 Mutual Witnessing

Similar to Matching, The DMP Bonnie Meekums explores the process of Mutual Witnessing, where 'any conscious witnessing of another's movement', with the attitude of 'not knowingness' (Meekums, 2012:59). Through Mutual Witnessing, she allows herself to 'simply *be with* the other, the mover, in a state of quiet receptivity'.

As in matching, the practitioner attends to their own movement whilst feeling the animated presence of my partner. Meeting in a liminal space, a place of transition and emergence, partners connect as material bodies, embodied with thoughts and feelings. They notice slight shifts in their partner's dance as creative and shape-shifting and 'a means of entering into relation with all things' (Abrams 1996: 47). In this relationship, their sensory-motor processes are 'everywhere and at all times interpenetrating one

another to create the homogeneity of conscious experience' (Juhan, 2003: 3527). The partners exist in an inter-corporeal dialogue and without words they 'relax into another kind of communication' (Albright 2001: 245). When people's bodies are 'in sync' the dyadic relationship suggests 'some underlying movement metaphor for the experience of oneness, implicitly known rather than verbalised' (Meekums, 2012: 63).

In one to one Dance and Parkinson's practice, my approach includes moving in this place of quiet receptivity alongside my partner with Parkinson's. Through the felt sense, I actively attune or listen to our movements and see what answer or response emerges through our dances and verbal reflections. In my journal I reflect that 'in the dance process, we share gestures, movement patterns, eye contact, the touch of skin, a feeling state, a word during or after movement, a moment of stillness, a sense of breaking away, a moment of joining, a beginning or an end'.

4.11 Witnessing and Moving

With three research participants (Anne, Lynne, Peggy), I explored a witness/mover relationship, where one of us moved and the other witnessed their partner's movement. [76]With other participants, both partners danced at the same time. This is because I found that when people with Parkinson's witnessed me dancing in an authentic way, it often made them feel heavy hearted because they were not able to move how they really wanted to anymore. In this context, bringing attention to difference can be a painful experience. Instead, I chose to dance with people with Parkinson's and to share the joy of moving together. I adopted the idea of the 'moving witness' from the

[76] The witness/mover relationship was originally established in the Authentic Movement process of Mary Starks Whitehouse (1911 – 1979).

Authentic Movement process. Here, I drew on Janet Adler's (2002) account of the 'moving witness' from the Authentic Movement process in which:

> [f]or each, the "other" is no longer just witness, predictably sitting still and silent to the side of the movement space. This "other" is right here, intending to listen more and more deeply within herself while intending to maintain some kind of awareness of the other mover in space (Adler, 2002:43).

In one to one Dance and Parkinson's practice, I use the term 'moving witness' to indicate that in the dancing partnership, we shared embodied presence, an act which connected us in the moment of dancing together, almost by way of 'transmission' Susan Bauer (2018). Using the process of the 'moving witness', I aimed to encourage research participants to focus on their body-mind connection and to dance with self-awareness. I modelled this dance practice through the 'moving witness' process, with the purpose of supporting our understanding and co-learning. In moving freely, Adrian contended that 'I'm taking some control' and Anne expressed how 'I was free to experiment and do different things. I let myself go'. Shusterman (2008) identifies how dance enhances personal expression, an experience which gives people a sense of freedom. When dance changes perceptions and feelings in people with Parkinson's it may also support greater confidence, self-esteem, agency, and self-efficacy (Heiberger et al., 2011; Houston & McGill, 2013; McRae et al., 2018).

With my somatically informed approach to one to one Dance and Parkinson's practice highlighted, I now turn to practitioners from the US who also explore one to one practice

4.12 Comparing approaches.

My US based dance research gave me different insights into the possibilities for supporting health in the Parkinson's population. It also enabled me to form connections to three eminent Dance and Parkinson's practitioners, namely David Leventhal, Pamela Quinn, and John Argue, with our approaches to one to one practice now compared.

Both Quinn and Leventhal have recent experience of delivering one to one Dance and Parkinson's practice in people's homes, with one to one practice a specific focus of Quinn's work. Whereas Leventhal and Quinn are both dance artists, Quinn now identifies herself through the role of movement coach for people with Parkinson's. An example of Quinn adopting the role of 'movement coach,'[77] is when she directs specific movement skills in participants, as remedy or support for physical maintenance. Quinn watches people with Parkinson's as they walk and change direction. She explains that "I have them walk, stop. I watch them move." Here Quinn acts in the same way a coach would observe and monitor an athlete as a means of improving their performance.

A professional dancer and Parkinson's practitioner for over twenty years, Pamela Quinn also lives with the condition of Parkinson's. Identifying herself as an 'outlier', Quinn's dance practice emerges from her own experience of living with Parkinson's. Quinn's PD Movement Lab aims for people with Parkinson's to 'craft mobile lives'

[77] Pamela Quinn is a professional dancer and PD Coach who has had Parkinson's disease for over 20 years. Her personal experience of PD combined with her keen knowledge of the body derived from dance training gives her a unique position from which to analyze patients' physical functioning and to imagine creative solutions to the problems posed by PD (https://pdmovementlab.com)

(pdmovementlab.com). In on to one practice, Quinn aims to create new approaches to the day-to-day physical challenges faced by people with Parkinson's. She blends her dance training with her personal experience of Parkinson's, with Quinn aiming to invent 'tools that allow people with Parkinson's to rediscover mobility and greater physical freedom' (pdmovementlab.com).

Since 2007, David Leventhal has directed Dance for PD® at the Mark Morris Dance Group in Brooklyn, New York. This programme aims to encourage people with Parkinson's 'to experience the joys and benefits of dance while creatively addressing symptom-specific concerns related to balance, cognition, motor skill, depression and physical confidence' (danceforparkinsons.org). In one to one practice, David Leventhal is interested in exploring the artistry and aesthetic meaning of dance for people with Parkinson's. Through performative processes, participants engage with the beauty, rigour, and creative range of the art form, a process which promotes lifelong learning and flexibility in mind and movement (Leventhal, 2014). However, in his role as dance artist in one to one practice, Leventhal sometimes feels "a little bit more like a coach as well as a [dance][78] teacher" (Leventhal 2017). He recognises the need to support functional or remedial aspects of movement in people with Parkinson's, whose mobility is physically and cognitively challenged. In this sense, one to one Dance and Parkinson's practice mirrors the technical training of a professional dancer or dance student. The following passage describes how Leventhal delivers practice in his way:

> So, for one gentleman, he had a lot of rigidity, and I was really on a quest to try to find a movement modality that would bring him back to a state of stretch

[78] My insert of the word dance to clarify Leventhal's reflection.

> and openness. And, he tried a whole bunch of different things, and he really liked the dance class. I think for those sessions, it became a little bit more sort of hands on. I wouldn't say therapy, because I'm not trained to provide that, but we did more stretching, more sort of like exercises, things against the wall, that were based on dance, but were more remedial than sort of artistic exploration. I think that the objectives for that, the outcomes that we were looking for, were really stability and postural integrity. He was really stooped. It was really hard for him to open his chest, so we worked specifically on that skill and that awareness. I did a lot of tactile work with him like having him try to feel an open chest and working on his arm placement.

Like Leventhal and Quinn, I value the artistry of dance as fundamental to a dancer's self-expression (Armelagos & Sirridge, 1977; McFee, 1992). As with Leventhal and Quinn, I explore a mix of choreographic and improvisational dance practice. Artist-led dance phrases help to structure movement, bring attention to different body parts and how they interact. They support movement amplitude which declines in people with Parkinson's. I draw on different dance genres such as contemporary, ballet, musical theatre, or social and popular dance, with references to African and Indian dance also included. Although the acquisition and performance of specific dance steps, like a tendu or a chassé, is an aim for people with Parkinson's, it is not a requirement since there are no wrong ways of moving. As Houston reminds us (2019: 97), 'the community dance movement, particularly in the UK, has sought to champion dancing for people as artists, irrespective of how they move or the extent of their formal training'. Like Quinn, I often explore specific movement patterns such as walking, turning, or rolling, with these elements fundamental to dance, but also essential for people's activities of daily living.

Like Leventhal and Quinn, I throw a wide net and aim to connect to the interests of participants. Perhaps I draw attention to the carriage of people's arms, the detail involved in their footwork, or the unfolding nature of narrative-based choreographies. Whereas interpretation underpins elements of dance for musical theatre, the use of social and popular dance may focus on repetition and interaction, with the repetition of movement and music building cyclical patterns or sequences as support to motility in people with Parkinson's. Often at the beginning of the sessions, I explore specific choreographed movement phrases to establish a dance environment. This is because I notice and sense that my partner's is tired, or that their movement is stuck and needs additional exploration. I aim to shift people's movement action and quality, so that they can transition to a more comfortable or easeful body feeling.

A shared goal is to combine dance and music to initiate and sustain enjoyable movement experiences, with music driving the direction of dance, requiring the artist and participant to respond authentically to their changing auditory environment. With the support of music, all practitioners explore the quality or feel of dance, with embodied movement experiences adding personal meaning to the process of dancing. Connecting to the aesthetics of movement, participants might experience a sense of flow when successive sequences of movements or body parts are integrated. Bodily control is gained when attending to the extension and flexion of the torso, or in the ability to find a state of balance in a parallel stance. In rediscovering the personal value of movement through an aesthetic engagement with dance, people with Parkinson's are able to connect more fully with themselves, so that experiencing grace in the act of dancing, each person becomes whole (Houston, 2019; Iverson 2014b).

Houston identifies three ways in which participants with Parkinson's experience grace in the dance class. Internalised in the process of moving, physical grace is encountered through the shifting movement qualities of dancers with Parkinson's. Noticing the embodiment of grace in their shared dance performances, other class participants afford the mover with dignity through the enactment of care and respect in witnessing their dance. And so, grace is relational, and a gift exchanged between people which expands beyond the confines of the dance class from each participant into the wider community.

For Leventhal and Quinn, performance work is often explored outside the class setting through staged events and film. Weekly classes engage with the performative aspects of dance through artist-led movement material or improvisation as process-based rather than product-oriented practice. In my investigation, I also explored artist-led material, improvisation, and authentic movement responses as the performative aspects of dance as a process for supporting change, an area explored later in this chapter. My investigation also examines the performative as a process for generating non-verbal knowledge production.

Now retired, John Argue has worked with the Parkinson's population in Oakland, California for over thirty years. With a background in theatre and movement studies, including tai chi and dance Argue focuses his practice on creative movement frameworks. Often echoing somatic movement practices, Argue aims to explore body-mind connections as a support to movement and thinking during sessions and in people's activities of daily living. Originally stemming from one to one practice,

Argue's comprehensive movement programme 'Parkinson's Disease & the Art of Moving' (2000), supports people with Parkinson's to move gracefully, mindfully, and with completion. Like the dancer, people with Parkinson's are encouraged to move with power and ease, so that they can 'get the job done with the least amount of effort or force' (Argue, 2000 in interview). Learning to be mindful of their movement, Argue encourages people with Parkinson's to be intentionally aware of their actions in the process of performing them. Working with completion, participants focus on breaking movement into specific elements, without having to perform too many actions at the same time. Argue urges participants to finish each action and come to a position of stillness before they begin the next movement. Movement visualisation is key to his one to one practice, with a focus on supporting people's activities of daily living. In these latter aspects of practice Argue mirrors the principles of neuro-physiotherapy.

Although present in the practice of Leventhal, the relationship between body and mind is fundamental to John Argue's movement practice. In class Argue gives weight to the subtle interplay between physical, cognitive, and emotional connections in and between participants, with people with Parkinson's encouraged to notice and reflect on their changing perceptions in moments of movement and stillness. This premise also underpinned his one to one practice as movement sequences were created in relationship with people with Parkinson's. Argue's directed movement phrases are detailed, image-based, rehearsed, repeated each session, and broken down into specific components, with the pace slow and considered. Music is often played in the background, although it can be introduced more strongly during structured movement in standing or when participants are encouraged to explore their authentic movement

through dance. Like Argue, my somatically informed practice emphasises the importance of the body-mind connection in dance for people with Parkinson's, with this link specifically examined in Chapter Five.

As with Argue, Quinn's one to one dance practice seeks to involve participants with Parkinson's in body and mind practice which explore sensory awareness. Quinn discusses movement posture with clients as "active rather than positional, with "energy constantly pulling [downwards]". The following passage illustrates how Quinn moves between the roles of coach and sensory guide in one to one Dance and Parkinson's practice:

> I usually start sitting in a chair, like I do at the beginning of class. So, they don't have to focus on balance. So, we focus on how we move the spine, and their quality of movement, experiencing different dynamics. And then, we'll stand up and focus on how to get out of a chair and how to elongate the body by pressing down. And then, we'll try some moves through space. Walking things or a dancing kind of walk, or a walk where they have to pick something up, or a walk where they have to turn around.

Here, Quinn specifically addresses Parkinson's symptoms like balance, lack of movement amplitude, and flexed posture through movements which are sensed and felt. Quinn refers to one of her daily movement sequences in the home which she then practices with other people with Parkinson's in their home environments as support to their daily activities of living. Quinn's movement education prepares them for subsequent dance engagement, in a similar way to the dancer takes a class before a performance. In the movement phrase, Quinn elongates her body by pushing her hands

against a kitchen countertop, extending her arms, and unfolding her torso.[79] Quinn explains that she uses her kitchen worktop as a posture station:

> Quinn: I try to push my body into a posture that is inverted from what Parkinson's usually does. So, I'm going to push my hips forward, I'm gonna stretch my spine and I'm going to make an arch in my upper back. So, I push up and I arch…and again I push up, I'm pushing down on the table, down on the chair.
>
> Mel: So, your weight's going through the countertop?
> Pamela: And then I take that, and I try to maintain it. I take that feeling I keep it. I keep it and already you can see I'm straighter. And then I do it again.

This movement sequence is important because the brain receives information that the body is unfolding and lengthening, rather than folding and decreasing. Moving from a place of awareness, the action helps prevent flexed posture, a common Parkinson's feature. Pushing away from the countertop, and yielding towards it, the sequence also echoes developmental movement patterns identified in my thesis. This movement sequence is important because people with Parkinson's have persistent sagittal flexion which causes their body weight to project forwards, resulting in movement instability. Their internal body organs become compromised and their breathing restricted. Eddy (2014) confirmed that people with Parkinson's would benefit from such sensory-motor feedback because using their body weight to feel a connection through their skeletal

[79] In an interview at Pamela Quinn's home (2014), I witnessed her performing this self-devised movement routine which she normally practices each morning before taking any Parkinson's medication. Pamela has filmed herself before and after the movement exploration to illustrate the direct benefit of movement practice for her Parkinson's symptoms before any drugs are self-administered.

muscular system, has the potential to reorganise or re-pattern neurophysical pathways in people with Parkinson's.

Like Argue, Quinn aims to support people's activities of daily living through her practice. In my one to one practice, I also explore dance as support to daily life in people's homes. This is often because participants wanted to be able to walk more proficiently and were concerned with how they might navigate their home environment as their condition progressed, with the dancing reflections of participants now examined.

4.13 Research participants.

Eleven people with Parkinson's were research participants in my one to one somatically informed Dance and Parkinson's project Home Performance. The following descriptions summarise my experience of working with each research participant and reflect my perception of our shared dance practice.

Bob enjoyed dancing to the music and aimed to become fitter and more confident in his everyday life. He wanted to do new things and fill the gaps of his life with different activities because he could no longer take part in hill walking, photography, or driving. Bob was confident when dancing in space and on the floor. He rarely sat down in a one-hour session. We danced continuously, stopping now and again to check in with each other about what we had noticed as we danced together through a process of mutual witnessing. Bob and I made some films about our work together which are included as links in the Appendices of my thesis. These films provide further evidence

of the beneficial aspects of one to one Dance and Parkinson's practice. He was keen to support his Parkinson's community and wrote poems for different members when they faced difficulties.

Peggy aimed to make a full recovery after her first hip operation, although she had lost confidence when moving in her home and struggled with the idea of venturing outside. Peggy had stopped joining in with her usual social activities, but after working together, Peggy organised a dance event for her friends and local community in the hall across from her house. I ran a couple of dance sessions for everyone on Peggy's housing estate. Peggy also enjoyed choreographing dances to poems and music and was more positive in her outlook at the end of our sessions. Peggy mostly sat down in sessions, but towards the end, she was always determined to stand up with my support or with the support of her walking frame. Peggy liked to work hard in sessions as she used to be a very active person. Unfortunately, Peggy fell again and broke her hip once more. In hospital, Peggy contracted an infection and died from this complication.

Lynne always wanted to dance but lacked the opportunity to do so when she was a young girl growing up in difficult environment in Brooklyn, New York. Her aim was to improve her dancing, and at one stage regularly attended my community class 'Moving, Dancing, and Relaxing'. Lynne was very focused on the creative, connective, and communicative aspects of our work. Lynne liked to improvise and explore the structure of movement sequences as well as exploring a witness and mover relationship. She enjoyed floor work, touch based dance practice, and contact improvisation. Lynne identified how our dance sessions might help other people with

Parkinson's and how they supported her activities of daily living. Before Lynne had two hip operations, she moved very fluidly and was able to walk and travel in different directions. After her operations, Lynne found it increasingly difficult to manage living at home and now lives in a local care home.

Bill was very aware of his movement and his felt experience of dancing, having studied martial arts when he was younger. Bill loved dancing to Northern Soul music and liked to dance with his wife, Helen. Bill was not confident in groups, but really enjoyed our one to one sessions. His aim was to dance freely to music during the latter parts of our session and to have fun. Once Bill relaxed, he was able to move and travel by himself around the lounge. He had great energy, full-bodied, and coordinated movement.

Whilst Adrian enjoyed dancing to rock 'n' Roll music, he also liked dancing slowly and with awareness. Adrian's aim was to get fitter during our sessions, to find some control over his symptoms of dystonia, and get relief from the pain he experienced, particularly in his neck. Adrian guided our sessions and decided when he was able to move more vigorously. Sometimes Adrian preferred to sit quite still and focus on his breath or experience some gentle touch-based practice on his head and shoulder girdle. This helped to decrease Adrian's pain. Often Adrian enjoyed dancing together in standing as he needed support to remain stable. However, when jiving, Adrian's movement became more fluid and he could move with much greater freedom. Adrian's movement fluctuated significantly during sessions and from week to week.

Anne enjoyed dancing and took part in other forms of exercise in the week, such as Pilates. She was also a keen walker, although she found longer walks very challenging because they made her feet sore. Anne liked to try new things in our one to one sessions. She enjoyed both directed and improvised dance material and also explored a witness and mover relationship. We always began in a seated position and then worked our way up to standing and travelling. Anne maintained careful, and bound movement, although she could find flow when travelling into space. Anne could skip quite easily either with or without music, with arms and legs coordinated.

For medical reasons, Connie was not able to take many of the Parkinson's drugs. She found all movement and speech challenging. During one to one sessions, Connie's movement amplitude extended, especially when using her arms. Connie responded well when mirroring my movement. She enjoyed the companionship and was very supportive of my research. Connie was interested and engaged throughout our sessions. She liked to end by coming into standing and propping herself between the door frame in her kitchen so that she could achieve independent balance, and sometimes was able to take a number of steps.

Barry liked to have fun and make jokes. Although I found it difficult to understand Barry in conversation, we found that gesture and dance enabled us to interact and share ideas. Barry loved football, and I bought him a felt football which we threw or passed to each other in creative ways at the beginning of sessions. Barry's movement range increased during sessions, and with support, he was able to stand up and sway forwards and backwards as well as side to side. It was important to Barry that we were

friends. Barry loved classical music and we used his music selection during one to one sessions. Barry died the year following our one to one sessions together.

Angela (D) loved dancing, especially to popular music from her earlier years. Angela (D) was one year younger than me and so we had shared the same music when we were growing up. We created different dances to her favourite songs. She always smiled a lot when dancing and enjoyed having company. Angela (D) had little balance but loved to stand up with support and dance as much as possible in a small area and in a small way. Angela (D) liked to choreograph and had always encouraged her family to dance and sing. It was important for her to share stories about her family, even though conversations were limited due to Angela's speech difficulties. Angela (D) was diagnosed with Multiple System Atrophy at the time of our one to one sessions. As previously indicated, this is an advanced form of Parkinson's where people experience all those symptoms associated with Parkinson's, but simultaneously. I found that if I helped Angela (D) to move her ankles and receive feedback through her feet, she could then stand more easily. Angela (D) died in 2017.

Angela (B) enjoyed our dance sessions at home. We always started in a seated position and ended by travelling around her front room. I often directed movement at the beginning of sessions and Angela mirrored my movement and this led to mirrored exchanges as dance improvisation. In standing, I used verbal auditory cueing to support Angela's movement and we also explored spontaneous improvisation as a response to changes in music. Sometimes we used props, with these dances always ending in laughter. Angela (B) had increasing concerns about her hallucinations at

night which she found extremely frightening. We were able to discuss these and find support for Angela through the Parkinson's support group and nurses.

Like Angela (D), Mick lived with Multiple System Atrophy. His condition was more advanced at the beginning of our one to one sessions and Mick died in the next year and a half of us working together. Mick was a sound engineer but was now unable to do his job which he missed greatly. He was very interested in the way that dance might help to support movement and enjoyed our work together. Generally, he aimed to dance or exercise alone before going to bed because it helped him to sleep. Working slowly, and with attention to detail, I was able to support Mick's movement, so that he could experience himself shifting in space and find momentary balance when standing. As a dance artist, I used descriptive language supported by verbal auditory cueing, as well as mirrored movements.

4.14 Common experiences

Through their dances, participants performed unequivocally their experience of living with Parkinson's. I witnessed them 'dancing to embody movement and moving to share their dance about living with a long-term neurological condition' (Brierley, 2016). The material-discursive accounts developed through their embodied experiences and verbal reflections, offer a personal rather than externalised perspective of living with Parkinson's.

In this respect, Houston (2013:16) cites the anthropologist Haim Hazan, who contends that 'whereas the aged are seen as having long, rich, personal and social histories, we

relate to them as discrete beings detached from their previous lives and from the social frameworks of the non-aged' (Hazan, 1994:18). Although I recognise that not all people living with Parkinson's are elderly, Hazan's words speak about the way older people, or people living with long-term health conditions and disabilities, may feel socially excluded or isolated. Additionally, Houston identifies that some of the negative attitudes towards people's roles in society may then become personally embodied, with individuals 'relinquishing activities they might have done and even self-identities they might have had' (Houston, 2013:16).

Research participants spoke of their 'loss'. No longer being able to walk up mountains, go fishing, speak on the radio, do shopping alone, walk unaided, stand without fear of falling. As research practitioner, I responded to people's loss by actively listening to their reflections and maintaining an embodied connection with myself as well as the other person. Holding my partner in this way, I was able to guide us through challenging memories and felt experiences by reflecting back or matching any significant words or gestures which emerged. I could then support my partner with Parkinson's by bringing our attention back to the breath, finding connection to the ground through our feet or other body parts connected to the floor, and eventually returning slowly back into movement. In response to loss, I supported my partner by finding movements that they could still achieve. A dance of companionship, one to one Dance and Parkinson's practice highlights that the person is not alone in their experience of living with Parkinson's but connected to themselves and other people, with their feelings accepted and valued. Acceptance and valuing of the person is at the heart of person-centred dance practice and person-centred care (Kitwood and Bredin,

1992a: 274). Learning from this experience, I adopted this safeguarding process when responding to similar encounters with participants, with my approach reflected in my new framework of one to one Dance and Parkinson's practice.

All research participants indicated that our one to one sessions were enjoyable, with people looking forward to my visit. They valued the companionship of one to one Dance and Parkinson's practice. Comparing this finding with the Dance and Parkinson's literature, I note that as an interpersonal experience, Kattenstroth et al., (2010) dance is a means of supporting social interaction in people with Parkinson's. Dance also reduces social isolation (Hackney and Bennett, 2014), promotes a positive mood, and socialisation (Heiberger et al., 2015; Westheimer, 2008; Queensland Ballet, 2014).

All participants experienced pain as a result of living with Parkinson's. Often physical pain was located in people's shoulders, arms, ankles, feet, and spine. I noticed that all participants had scoliosis as a result of the muscular imbalance caused by Parkinson's. I was aware that touch-based somatic dance practice relieved some of their physical pain and that I was able to support some of the postural difficulties and pain associated with scoliosis. Dealing with pain is an important area for further exploration.

Although I had not presented our one to one sessions in this way, participants also spoke about our shared process as a form of exercise, with Adrian commenting that: 'I loved the actual workout. It's done me good' and 'I did more there (in the session) than I do in a whole week'. At another time, Adrian explains that the one to one

session: ‘gives me a chance to exercise. Try to keep my limbs and muscles working. I don’t want the disease to beat me’. Similarly, Anne identifies that: ‘if you do exercise, it makes a long-term difference’. Bob notices that dance has helped him improve his movement capacity. He comments: ‘I’m more flexible’ and ‘better at moving’. He also explains that the dance sessions have made him feel: ‘more confident. And, it helps me with mobility. It slows the degrading down’. Angela (B) found the dance exercise exhilarating’ and at the end of a session, Connie comments that: ‘my movement’s improved’.

Research participants had received information from their local Parkinson’s UK support group, indicating the benefits of exercising to their Parkinson’s condition. This may have been a factor in self-selecting for my one to one research. As indicated earlier in the thesis, dance includes many of the components found in an exercise class, but often promotes better attendance because it is viewed as an enjoyable activity and potentially one that is neuroprotective (Goodwin et al., 2008: 631; Fox et al., 2006). The importance of fitness in enhancing movement performance is included in a dancer’s training. Incorporating the features of strength, endurance, and flexibility into the creative dance process may be an important aspect of Dance and Parkinson’s practice and one which supports physical and psychological health in this population.

In relation to physical endurance and strength, with the research participant Bob, I had created a dance sequence which involved us rolling on the floor. Our dance sequence aimed to find flow in linking whole body parts together in movement whilst responding through our haptic sense when in connection with the floor. Bob noticed

that he needed a lot of strength to get up from his supine position and return to a safe tabletop position on all fours. He explains that his difficulty is due to not having strength in his arms due to his Parkinson's condition:

> When I roll on the floor on the bad side (the side most affected by Parkinson's), I'm always hesitant. I think 'Has this arm got the strength? Or will it collapse on me and leave me flat on the floor, like a fool?'.

Working one to one with research participants, I began to understand how our co-created practice might be categorised into explorations of connection and flow. Underpinned by a somatically informed dance perspective, a number of connective dance practices promoted body/mind integration, movement confidence and efficiency. Working with the idea of creative flux and flow, I explored the way participants experienced a sense of fluidity rather than rigidity, with several perspectives of flow discovered in the research process. The concepts of connection and flow relate to the idea of dance as an intra-action between dancing partners, the home environment, and with props used in sessions, with these collective material objects working together to support health and our changing perceptions.
Chapters Five and Six examine participant experiences during one to one Dance and Parkinson's practice, with the concepts of connection and flow being addressed respectively.

Chapter Five

Connection and Re-connection

5.0 Introduction.

Dance has the potential to re-integrate the body and mind, with a positive effect on physicality, emotion, and cognition in people with Parkinson's. In this chapter, I examine some of the dance practices which support a sense of connection and re-connection during one to one Dance and Parkinson's sessions because if people with Parkinson's 'become involved in a movement process the motor symptoms can disappear for a short time' (Bunce, 2002: 31). Through practices which promote a body-mind re-connection, I examine dance as a process for supporting self-awareness in people with Parkinson's Specifically, I refer to the work of John Argue and discuss how his practices can be assimilated and explored within dance practice. To begin with, I explore participant experiences of grounded connectivity.

5.1 Grounded Connection.

In somatic dance practice, having a sense of grounded connection may enable people to feel safe and stable. The practice of 'being grounded' is achieved through the release of bodily tension, identified by Peggy Hackney (2002:236) as 'a weighted outpouring of flow from the person into the earth which allows him/her to then sense the earth meeting that weight and providing support'. For people with Parkinson's, 'an emphasis on weight in the body, where the person experiences a sense of gravity' helps them to improve stability and balance (Bunce, 2002). Deane Juhan (2003: 250)

also reminds us that in relation to gravity ‘all movement is a question of balance between surrender and resistance to this downward pull, and in the movement of my own body it is my muscular sensations which provide the mechanism used by the mind to sense and control this balance’.

The weight release described by Juhan does not come naturally. With rigid and tight muscles, the action of releasing their weight is not easily achieved. For some, this means that finding balance is also difficult. Without the ability to release their weight, some people may teeter on the balls of their feet and project themselves forwards, with falls often the result of this act of propulsion (Argue, 2015). The Somatic practitioners Brodie and Lobel (2016:52) identify that when feeling unsteady ‘there is sometimes a tendency to bind flow and resist gravity, which impedes the ability to adjust, ground, and regain balance’. Here, the problem with alignment is ‘not about standing straight or upright but rather about the changing relationships within the body, sensing balance, and avoiding unnecessary muscular holding so the body is open to possibility’ (Bales, 2008:157). In agreement, Martha Eddy (2016) points out that the experience of weight changes in people with Parkinson’s. They often have a ‘hovering’ quality to their movement which alters their felt sense of movement, a factor which can negatively affect psychological as well as physical perceptions.

For people with Parkinson’s, weight is experienced differently, with factors such as the timing of medication altering people’s balance perception. For some, the ground can feel unstable, spongy rather than solid, with textural changes to surfaces causing confusion and freezing of gait. For others, the condition of Parkinson's causes their

toes to persistently flex, a symptom which impacts their ability to find a stable base through their feet in relation to the ground, with this instability increasing their likelihood of falling.

Quinn (2017), identifies another factor concerning weight in people with Parkinson's. She explains that often 'when we [people with Parkinson's] go upstairs, our legs are super heavy, like blocks of cement. We have to work extra hard to lift them and make them move'.

Quinn identifies the felt sensation of rigidity and how it also impedes movement in people with Parkinson's:

> When we are rigid or experience bradykinesia, it's like our whole body is a stiff neck. When you have a stiff neck, you turn by moving your spine, not by rotating your head. We have a Frankenstein-like way of moving. The whole body moves in one piece.

Weight release can support rigidity, and often through movements which produce a swinging motion. Addressing her own rigidity, Peggy commented that "I feel looser all over", which was also the case for Mick and Barry. Mick identified that "I'm looser in my arms, and especially the shoulders. I'm stretching, I'm getting in the muscles" (points to his trunk). Research participants in a Dance and Parkinson's project at the English National Ballet felt less rigid after dancing, with many aware of a 'loosening of the back' (Houston and McGill, 2013:112).

Fear of falling may restrict people's movement which may itself create the conditions where falls occur. Pamela Quinn describes how people with Parkinson's fall if "they always have their feet touching the floor, because they're afraid to fall, so they stop as a way of keeping a connection to the floor, but then they trip!" (Quinn, 2017)[80]. Quinn reveals that "why this person falls, and that person falls maybe totally different. One person may initiate movements by leaning forward, which a lot of people do, and initiate the process of falling just by moving forward into their weight" (Quinn, 2017). She believes that "even though you think of fall prevention as being a sort of singular thing, it's not" (Quinn, 2017).

In my project Home Performance, I aimed to discover ways in which individual research participants might release their weight into the ground and into gravity, and as a result, feel more stable and achieve better balance. Participants who were able to transition from a chair to the floor, through a guided process, benefitted from releasing their weight into the ground. From this position, I could also hold arms and legs so that people could experience a sense of weight. The Dance Movement Psychotherapist, Jill Bunce, also recommends floor work with people with Parkinson's (2002:34). This is because 'it reduces the need to struggle in order to stay upright'. Bringing mass and gravity to mind causes relaxation of muscle tensions. Joan Skinner (1979) originator of Skinner Release Technique observes that the skill of 'releasing' unnecessary tension patterns means that balancing on two feet becomes a multi-directional, multi-dimensional experience in space, with balance a dynamic process since shifts of

[80] Pamela Quinn in Skype interview (2017).

weight alters people's centre of balance, with the only constant being change (Garrett Brown, 2007: 113).

Another way to approach this sensation is to tense the muscles, holding against the force of gravity, and then release the tension. This action may be achieved by the person with Parkinson's themselves, or through touch support from the dance artist. (Eddy, 2018). While standing, this process reveals the 'Small Dance', the reflexes which enable standing balance. (notes were taken by fellow practitioners in one of Steve Paxton's Contact Improvisation classes, February 1977). My following reflection reveals how one participant experiences a sense of weight release during our co-creative exploration:

> For Mick, coming into standing and balancing was a difficult task. I tried to assist him by standing in front and securely holding his forearms. I noticed that Mick's leant forwards so that he could not achieve a fully grounded connection and balance successfully. I encouraged Mick to allow his knees to soften and his tail bone to feel like it was dropping down towards the ground. We imagined that we had tails, like a dinosaur or kangaroo, which rested on the ground to support us. This visual image enabled Mick to release his weight a little into the ground, feel more relaxed, and achieve some sense of balance. I still needed to hold Mick securely, but there had been a change in Mick's ability to weight release. In this position, we could enjoy shifting our weight laterally and feeling our bodies transition slightly through the pelvis as we connected our movement to the music.

Barry, Connie, Angela (D), Adrian and Peggy who were all challenged to stand and balance. In a diary entry after working with Barry (2014), I noted that 'we found balance and stability together holding hands, slowly swinging our arms and bodies back and forth to some Waltz music that Barry enjoyed'.

Lynne also found that standing in parallel and curling down slowly through her spine to the floor, helped her to experience evenly balanced weight. I have noticed that people with Parkinson's experience bodily imbalance because of scoliosis, a common feature in which muscular imbalance causes the spine to curve and rotate. Scoliosis is another Parkinson's symptom which offsets people's sense of symmetry and balance. As someone who has lived with a prominent Scoliosis all my life, I can empathise with the feeling of pain and discomfort it causes.

Supporting my thinking and practice, Brodie and Lobel (2016) identify that in older people, improved movement is found when slowly shifting their weight from one side to another with ease and awareness of people's weight supporting opportunities to develop strength in the body. Although younger people are also diagnosed with Parkinson's, Brodie and Lobel's information about dance for an ageing population is also relevant for people living with neurological conditions such as Parkinson's, with Chapter Six revealing how shifting weight through an exploration of momentum supports flow experience in people with Parkinson's.

5.1a Whole body connectivity.

Bob is sometimes able to march or walk competently in one to one sessions because he has learned to focus his awareness, or body-mind connection, on the primary aspects of walking. This is achieved through an exploration of developmental movement patterns as documented by the Body Mind Centering specialist Bonnie Bainbridge Cohen and in Laban/Bartenieff movement fundamentals. Specifically, a way of

organising the body (Eddy, 2016), explorations of developmental movement patterns during floor-based practice support homologous, homolateral, and contralateral movement.

Exploring homologous movement, Bob rocks forwards and backwards in a table-top position on the floor. Because of Parkinson's, it would be extremely difficult for Bob to complete the homologous movement pattern such as 'bunny hopping' or leaping in a similar way to a frog, although he might try to. Instead, he initiates movement from his arms, so that his weight shifts forwards and backwards in the table-top position. In this way, he feels a similar experience. He also pushes his arms and weight downwards, so that he straightens his legs and shifting his pelvis upwards, in a downwards-dog position. Exploring how his weight shifts from one body section to another, Bob can experience the upper and lower body functioning as separate, yet interdependent units of action.

In homolateral movement, Bob crawls with a reptilian movement pattern, so that the right and left sides of the body contrast each other. Lastly, in contralateral movement, Bob connects his body on a diagonal axis. Here, an arm reaches forwards into space, connecting in opposition to the pushing movement of his leg. This movement creates rhythmic, flex/extend patterns in crawling. Once these stages have been explored, Bob stands up to experience the last pattern, that of contralateral movement in standing through the action of walking. Interestingly, Bob shares how he never really been able to march in sequence. His father was a Royal Sergeant Major but could never manage to teach Bob how to coordinate his upper and lower body and left/right connection so

that he could march. He explains:

> And he couldn't teach me how to march and it drove him potty. But you taught me how to by crawling along the floor like a baby because a baby instinctively moves the right way to keep itself balanced. Nobody teaches it, it does it itself. But once I'd got that right, I stood up and then I could do it!
> Performing such integrative movement patterns, Bob is then able to walk more confidently, and accurately across the room. Bob may not continue walking in this way and may not be able to do so after our one to one session. In group classes, Bob would find it challenging to retrieve this fluid walking pattern. This is because he does not have the same practitioner support as in a one to one session, with Bob needing guidance to re-experience the essential building blocks for his movement.

All research participants wanted to explore walking, with the aim of improving their ability and confidence when trying to walk 'normally'. As a dance artist, I responded to participants difficulties by finding different ways to creatively engage in the activity of walking. With Lynne, we projected imagined colours from the front of our bodies as we walked along, or the felt sensation of being pulled outwards from a line of string. With Peggy, I placed a fake medallion, or Hawaiian garland around her neck so that in displaying her flowers, she could maintain an upright posture when aiming to travel forwards or turn her upper body.

Argue employs movement visualisation to build confidence when walking. He highlights the fact that in people with Parkinson's, muscles that move the eyeballs from side to side and up and down, suffer impairment. And so, like other body parts, people's eyes sometimes move more slowly, festinate, and even freeze. In dance, as in day to day living, visual input is fundamental to both posture and movement. In my research, a participant known as Peggy confirms the importance of her vision in

relation to her movement, with this phenomenon captured in my reflection after a one to one session:

> For Peggy, connecting her eyes to movement when rotating her spine enabled her to feel that 'turning was easier' (Peggy, May 2014).

Significantly, the extraocular muscles responsible for eye movements, also stimulate proprioceptive information which supports head stabilisation and whole-body posture (Gallagher, 2005). Impaired vision in Parkinson's impacts people's ability to walk and have consistent gait (Argue, 2000).[81]

5.2 Connection to the home environment.

Dance supports sensory-motor feedback in people with Parkinson's who's proprioceptive or felt-sense diminishes. As sensory-motor feedback, dance supports body schema, body image, and a person's identity because as Deane Juhan (2003:34) explains 'by rubbing up against the world I define myself to myself'.

Research participants benefit from dance explorations in which they can sense themselves moving. Quinn identifies the importance of supporting proprioceptive feedback in people with Parkinson's:

> If a normal person sits on a high stool and their legs dangle in the air, that's kind of what our legs feel like when we're "off". They lack sensation. They are ungrounded and have nothing to push against. They are sort of dead or semi-paralyzed. When we stand, it's as if our spine and whole being is crumpled. We have trouble finding and experiencing extension. We have to work hard to push the floor away.

[81] See also Roll and Roll (1998); Roll, Roll, & Velay (1991).

Peggy enjoyed pushing her weight against my hands because “it was nice to feel something against you pushing back”. Bob and I explored the act of counterbalancing, where we could feel our weight as we held hands and leaned away from each other. When Lynne found walking challenging after her hip operation, we found that she could roll along the hallway with her weight pouring into the wall, and together we also explored simple contact improvisation movement, in standing and on the floor, enabling Lynne to sense her weight and therefore sense herself. Similarly, with Peggy and Lynne both recovering form hip operations, we explored the use of their walking frames as objects which enabled them to feel more stable and as objects which they could push against to help them move. In this way they explored an intra-action with their environment of sensation and other material objects.

Some participants experienced sensorimotor feedback when I placed balls under their feet, with a sequence of movement activities helping them to find mobility in their feet, knees, and hip joints. We developed whole dance sequences which involved pushing and rolling balls in different directions. Others used tapping movements with their hands or plastic fly swatters and feather dusters as a means of exploring and sensing the shape and structure of their body.

Bob enjoyed pushing himself against the wall, an action which helped him transfer into larger, and more extended movement sequences across the floor. Dancing in this way, Bob found that he could step out and turn when travelling between two walls. Bob reflected that he ‘was chuffed about that’. In sessions with Lynne, we received sensorimotor feedback by pushing our legs and feet against the door and wall, since

this enabled Lynne to have a better sense of her lower body.

5.2a Sensing weight with hand-held objects.

Bill, Anne, Angela, Adrian, and Bob improvised around John Argue's ball exercises. In some sessions, I had brought a small, rubbery apple-shaped ball[82] which had with one side slightly flatter than the other. We balanced the apple on our heads and began to drift our bodies from side to side, moving arms or legs, and eventually all body parts together. All participants could do this in standing, as well as seated positions. Bob was even able to squat down towards the floor with the apple still perfectly in position, illustrating proficiency in balancing.

Our improvised apple dances relied on participants sensing their weight and gravity. We discovered that the best technique was to adopt a similar weight sensing process which I explored with Mick as indicated earlier in this chapter. We started with a broad 'second' position with our feet,[83] which were often slightly turned out.[84] We relaxed our knees and sensed our tail of bones orienting towards the floor. In this way, our arms and legs were able to move freely around a central axis as we danced.

Bill's experience of an improvised apple dance was that it "felt as if it had become part of me, the apple, so whichever way I moved, the apple seemed to move with me, it was strange really a strange feeling". This shared dance practice supported Bill's

[82] The use of the apples was influenced by John Argues tennis ball exercise which I have adopted and explored in different ways.
[83] The second position is a term used in ballet.
[84] John Argue recommended that people with Parkinson's should turn out their feet as a way of preventing their leg from turning inwards. The leg most affected by Parkinson's.

psychological, as well as physical health which he identifies in the following reflection:

> Bill: Very relaxing. I found it very relaxing.
> Mel: Okay, yeah.
> Bill: Self-rewarding, I think. I've achieved something that I've never tried before.
> Mel: Mmm.
> Bill: I've never tried with an apple (both of us laugh at this point).
> Mel No.
> Bill: It felt self-rewarding.
> Mel Oh good.
> Bill: It was really nice to be able to do it.
> Mel: Yes.
> Bill: Even though I have Parkinson's, sometimes you feel as though you're...hopeless.
> Mel: Right.
> Bill: You know, today's something like a sense of achievement.
> Mel: Mmm, yes.
> Bill: That's how I'd put it.
> Mel: Yes, a sense of achievement.

I have also witnessed other practitioners exploring weighted movement with people with Parkinson's. At his class Qigong movement and meditation class in Northway, London, Neil Archer uses weighted batons to improve movement in people with Parkinson's. The batons, which are skittle-like in shape, are swung forwards and backwards in an even rhythm, with participants feeling the weighted swing on each side of their body. Participants then learn to swing the baton and change sides, alternating the weighted object from one hand to another. Speaking to participants after class on two separate occasions, they shared how they thought this activity particularly supported their balance.

5.3 Connection and proprioception.

People with Parkinson's are challenged to find a spatial connection. This is because their felt experience, or proprioceptive sensing, diminishes with disease progression. Their movement loses amplitude and is increasingly limited. Brodie and Lobel identify that movement efficiency can be supported through an exploration of 'kinetic chains' (Bartenieff, 1980; Hackney, 2002).

Kinetic chains or 'lines of connection', 'open tubes', and 'highways' (Hackney, 2002:37) are groups of muscles which are 'engaged either simultaneously or consecutively, to produce either support or movement' (Hackney, 2002:37). Focusing on the origin of kinetic chains, as well as the sequence of a chain through the body, increases 'the likelihood that the kinetic chain will be completed correctly' (Brodie and Lobel 2004:83).

In one to one Dance and Parkinson's practice, research participants sensed the kinetic chains of their bodies through self-directed touch, an activity which defines our sense of who we are (Juhan, 2003). Exploring kinetic chains, people with Parkinson's can also explore cross-lateral movement patterns, where for example, a hand crosses-over the midline of the body to touch the opposite shoulder. This action supports interaction between the left and right hemispheres of the brain and may, therefore, support movement and thinking in people with Parkinson's (Eddy, 2016).

As haptic sensing, self-directed touch supports people to experience feedback from their skin and may enable people with Parkinson's to have a coherent sense of themselves (Tufnell 2017: 71), with the skin acting as a 'limiting membrane' or

holding environment (Winnicott, 1973).

The skin is ‘the largest, the most varied, and the most constantly active source of sensations in the body’ (Juhan, 2003:28). Touch is important for affecting change in our sensorimotor organisation since nerve endings on the skin transmit their signals through parallel neurons and these end in adjacent cell bodies in the sensory cortex of the brain. As proprioceptive information, the use of touch may help to generate a map or schema of the body. Touch may enable the person with Parkinson’s to re-learn the meaning of tactile experience and ‘how this relates to contact with other people and their intimate relationships’ (Bunce, 2002). This is because people with Parkinson’s are often socially isolated and may be separated from the touch of their partner, with many needing to sleep in different rooms. Experiencing advancement in their Parkinson’s symptoms, people are less likely to physically interact with partners, family, and friends in the same way.

In one to one Dance and Parkinson’s practice, research participants used their hands to sense through layers of the skin. This process enabled direct sensory feedback to the brain as ‘miniature maps’ of the body, giving spatial direction to their experience (Juhan, 2003). Importantly, people with Parkinson’s will need slightly different timing to coordinate their movement in this way, since all experience a general slowing down of movement and with decrease proprioception, find it challenging to locate different body parts and connect one body part to another. Jill Bunce (2002) reminds us that limited sensory integration affects proper movement initiation and sequencing, so that the use of developmental work and the stimulation of the senses supports the extension

or range of movement in people with Parkinson's. One way of supporting this connection is through dance explorations which focus on movement initiation as naval radiation, an activity which I now explore.

5.4 Naval Radiation

Naval radiation is a developmental movement pattern which supports movement initiation and a sense of spatial integration (Cohen, 1993). Exploring naval radiation brings awareness to the interdependence and integration of body parts. In one to one Dance and Parkinson's practice, naval radiation exploration may support people with Parkinson's to perceive themselves as integrated or whole, rather than separated and disconnected. Noticing the difference between movements which are initiated from the center of the body and those that are executed from a distal position, may provide important sensorimotor feedback and greater movement control for people with Parkinson's.

Linda Hartley (1995), identifies that naval radiation is the dominant movement pattern in utero. It is also the same movement pattern of radial symmetry found in starfish. Here, movement is organised around the center, or naval. It radiates through all six limbs of the head, tail, arms, and legs. Improvising with naval radiation patterns, the dance artist can support their partner with Parkinson's to establish their body parts as separate and clearly differentiated. Hartley (2005) identifies that stimulated by another's touch or self-generated movement, there is potential to work with gentle and rhythmic compression so that limbs can extend into and out of the center of the body, with this action facilitating proprioceptive feedback and integration.

Developing from this perception, people with Parkinson's may be supported to sense how their body parts can be re-integrated into an articulate, and whole-body pattern. This process is important, since each body part learns that it is both discrete, yet connected to others via the naval, and therefore belongs to the whole. Hartley (1995:30) explains that when we 'differentiate, we can dis-identify from the part, then re-integrate it at a new level of wholeness and awareness'.

In one to one Dance and Parkinson's practice, I have supported my partner with Parkinson's to have an awareness of their body by exploring patterns of naval radiation. In seated or standing positions and with self-directed touch, research participants trace patterns of radiating lines from their center to the periphery of their bodies. Holding different body parts with their own hands, they also learn how to sense the weight of different body parts, and then re-integrate them in whole body movement in the process of dancing in response to music. This process allows weight sensing and spatial exploration, as described in my reflection:

> holding the weight of one elbow in the palm of the other hand, my partner can focus on the movement of one arm, wrist, or even a finger. With attention, they can explore how their arm moves in space, even if the action is very small.

This exercise can also be performed with the dance artist placing their arm underneath their partner's as supportive guidance. This is possible if the dance artist sits next to the person with Parkinson's, taking the weight of their arm on top of their own, and slowly responding to felt movement in this position as a small, partnered dance.

Developing explorations of naval radiation through dance in a standing position, Bob noticed that in swinging his arms, he could shift further into space. This movement was beneficial for Bob because “you’re using your whole-body, you can feel your spine moving as you’re swinging”. Peggy noticed how moving her arms gave her a sense of her center. She described how “swinging and pushing [with her arms] helps to loosen it up in the middle”. Using alternate arm swings enabled Anne to skip freely across the room. In contrast, Anne sometimes lost fluidity when walking. Walking is often initiated from the lower body, whereas skipping came out of Anne’s ability to swing her arms. Therefore, integrating the arms with lower body movement may support movement action in people with Parkinson’s. In their Dance and Parkinson’s study at the ENB, Houston and McGill (2013) also found that in dancing, the contra-lateral swinging of the arms enabled participants to ‘articulate their arms from their torso and to isolate the twist in their upper body’ which ‘made the movement look as though it was more comfortable to do’ because it ‘facilitated loosening of the spine, particularly the thoracic area’.

Anne also enjoyed slow and focused movement, which supported her to become aware of the movement in her arms and the rotation of her upper body. One movement sequence started with our hands placed on our upper bodies. We began to rotate very slowly, twisting our spines in a gentle, and easeful way. At the same time, and very gradually, we opened our arms, until they reached their maximum length. Anne commented that “twisting with the arms, and gradually opening, you felt like the Angel of the North. It made me feel like I had long arms, and wide wings”.

In a seated position, Barry explored alternative ways of moving outwards from his center which gave him a bigger sense of his personal space. Dancing in this way supported Barry's movement confidence. We opened our arms laterally, pushed out with our hands in front, and pointed to each other with exaggerated facial expressions.[85] We took this exercise into an extended dance improvisation, where we pointed and waved at other imaginary people sitting in different parts of the room.[86] Barry had a strong sense of humour and enjoyed role-playing different characters. For Barry, who had speech difficulties as a result of his Parkinson's condition, role-playing through dance improvisation was a beneficial method of communication.

Anne developed patterns of naval radiation through dancing in a witness and mover relationship. This practice echoed aspects of the Authentic Movement process of Mary Starks Whitehouse (1911 – 1979) although we did not follow a strict form of this dyadic dance practice. Anne focused on her sensate experience and later reflected on how she felt a connection between the upper and lower parts of her body:

> Anne: The overriding difference is that we concentrated on what it felt like, of what you're aware of when you are moving.
> Mel: And did you like this?
> Anne: Yes, I did like it. I particularly liked moving with my eyes closed. Much more sensual, much more aware of moving.
> Mel: Sensual.
> Anne: Sensual, feeling it.
> Mel: Perhaps it might be useful to do that?
> Anne: Yes, particularly the difference from my feet to my upper body.
> Mel So, you particularly noticed the difference between the upper and lower

[85] This movement activity was based on David Leventhal's use of gesture in 'Dance for PD' classes in New York.
[86] This improvisation was based on a similar one used by David Leventhal in 'Dance for PD' classes.

body?
Anne: Yes.
Mel: Did that stop you from moving?
Anne: No, I tried it. It didn't stop me. It wasn't just the eyes, it was actually moving my arms and feet and having my eyes closed. The balance wasn't as good as with my eyes open.
Mel: So, what did you rely on...that was interesting? What helped you balance?
Anne: Opening my eyes and seeing where I was! (we both laugh). But also, moving my arms and hands, that helps you keep your balance and allows you to feel the space. Then you're not going to crash in, not crash, but feel free to move. My hands are more able to detect what's there, rather than my feet.

Anne also explored dance within the wider space of her room, with the following transcription illustrating how she also begins to take notice and problem solve difficult movement situations, an indication that dance supports Anne's cognition and self-efficacy:

Anne: I think that I got caught in the corner a few times. I had to think, how am I going to get out of here, and it still be part of the movement, rather than an abrupt end.
Mel: Ah that's nice, yes.
Anne: In the corner.
Mel: Yes, in the corner. So, what did you do? I'm just interested to know. (Mel had been dancing in a different part of the room).
Anne: Well, I was right over here. (we move over to the part of the room where Anne was dancing).
Mel: Yes.
Anne: I came around, rather than come to the end
Mel: And just stop, and then turn? And so, you used the movement to help you turn around?
Anne: Yes.

Anne: I was doing a reverse turn. Instead of going around. I took a step back so you could twist. It changed the direction.

Mel: So, that's something that you could do more of maybe? Doing something where you're exploring your own movement rather than me saying, let's do this and let's do that.
Anne: It's nice doing that though (laughing)
Mel: (laughing) What, with me saying what to do?

Anne: Yes
Mel: You like that. It's nice to have a bit of both maybe isn't it?
Anne: Yes, yes, because often you may think of things that I hadn't. So, I think by moving, you're making mmm sorts of suggestions of how I could move.

Anne also describes how certain movements in and towards space supported her to feel more vital and in control of her Parkinson's condition. Anne was opening her arms and stretching:

Anne: I like that movement.
Mel: Yeah, you like opening up your arms and stretching. Do you know why?
Anne: Umm, well it's one of the first exercises I had. Yes, one of the first, and I like the opening out. It's sort of like welcoming the day, or, for me, it's got a special connotation compared with other exercises.
Mel: The feeling that it has?
Anne: Yes, and open (does the move again). You're opening up with Parkinson's, because if you're not careful you're closing in, and you have to work hard to keep opening up.

Research participants also noticed how movements came from different sides of their bodies or connected their upper and lower body parts. In this context, Adrian commented that "everything's connected to everything else, and it all meets up here" (pointing to his head). Adrian's comment also indicates that movement affects his cognitive capacities.

Bob noticed how his movement was coordinated differently on each side of his body. My reflection, which I recorded during our session illustrated how Bob experienced his imbalance:

> Mel: So, we were just discussing the scooping movement with the arm, and Bob was saying that to make the arm reach out to the side and then scoop inwards, he has to transfer his weight on to the same side as the arm, transfer the weight onto that leg and that side of the body to make that movement work, but if he was scooping on the other side, he doesn't need to do that, yes?
> Bob: Yes.

Exploring movement coordination, all research participants found that they needed to focus or concentrate on their movements, indicating that dance supports cognition as well as physicality.

5.5 Connection with breath.

Breath connects the mind and body (Hackney, 1998:53; Brodie and Lobel, 2004) and may promote relaxation in addition to stress management (Speads, 1995; Todd, 2008; Bunce, 2002). Breath supports people to become present and aware (Collinson, 2015). It acts as an internal 'gateway to movement' (Tufnell, 2017: 44) and supports change, with breath 'a manifestation of the interchangeability of self and the world' (Cooper Albright, 2009). Attending to breath, we can connect to the rhythm of our bodies. The incoming tidal breath encourages movement expansion, followed by a yielding motion towards the center in the process of exhalation.

Breath supports a sense of relaxation, connecting us to our parasympathetic nervous system so that we experience a greater sense of ease (Bainbridge Cohen, 2012). The parasympathetic nervous system is one part of the Autonomic Nervous System (ANS). It concerns digestive processes, repair, recuperation, and rest with reduced muscle tone, respiration, heart rate and blood pressure. The parasympathetic nervous system supports an inner-focused mind or one that is self-reflective. It allows our sensory

perception to relax so that in cultivating this state of calm, we become more able to cope with organismic stress. (Hartley, 1995; Juhan, 2003).

In one to one Dance and Parkinson's sessions, when participants experience fatigue or stress, we return to the breath as a means of connecting to self and as a process for promoting relaxation. All participants found that bringing attention to their breath enabled them to become calm and more relaxed. Working with the breath was new to many participants, except for Lynne who had studied yoga, and Bill, who had explored Martial Arts. Our sessions often began by simply noticing the breath, and feeling how our bodies began to soften, or feel heavier. In shared dance improvisations, we sometimes use our breath as a way of initiating movement, with breath enabling movement to become more expansive. I recognise that there is more to explore about the breath in the context of dance for people with Parkinson's, but the following are examples of the way breath has been explored so far in my one to one practice.
For people with Parkinson's whose breath might be restricted due to poor posture, connecting to breath may support movement spontaneity since its rhythm allows potential patterns of the body to unfold in 'silent sensing' (Hayes, 2007: 8). When people with Parkinson's feel locked, stiff, or rigid, returning to the breath can support relaxation and re-focus the body-mind. My following reflection identifies how breath supports Connie in a one to one session:

> I noticed that Connie's posture was more imbalanced than usual, with the right side of her body visibly higher than the left. She had quite an apparent tremor in her right hand. Connie commented that her "arm was moving even now". I realised that she felt unwell and was experiencing poor stability.

> We decided to follow a simple breath meditation, focusing on the feeling of the breath as it softly entered and exited our bodies. This was because I sensed that Connie needed to allow her weight to settle into the chair, in order to achieve a feeling of relaxation. After a while we began to open our arms one way and then the other, following the pathway with our gaze, reaching further each time in this mirrored image.
>
> In this session, it took Connie time to connect to her movement. She noticed that "my mind's not clicking in yet". After moving onto an improvisation with our feet, we finally ended in a standing position, with Connie commenting that she was "not so dizzy now after the moving. My balance is better, how 'bout that!".

This session illustrates that tension and anxiety may negatively affect movement in people with Parkinson's. It also reveals how breath supports participants to focus more clearly on movement and to find ease in their bodies. In somatically informed dance practice, finding bodily ease and exploring breath as an 'enspirited' connection, are two areas in which dance supports health.

Like Connie, Peggy began to see the value in slowing down and attending to her breath, commenting that "I feel more benefit going slowly than fast". Peggy normally enjoyed moving quickly and to percussive music, but over time, she found that approaching practice calmly enabled her to think more clearly about the pattern of her movement, with positive impact to her movement and movement confidence. Barry enjoyed exploring the 'wind breath' from Continuum practice[87] because without having to think, it prompted him to move as well as breathe. Engaging with the wind breath enabled Barry to move with greater lateral movement in a seated position and

[87] Continuum wind breath workshop on MA Dance and Somatic Wellbeing: Connections to the living body (Mary Abrams 2008 UCLAN)

encouraged him to use his arms and hands as he danced.

Angela described how focusing on her breath helped her to 'feel good', indicating that this movement practice supported an improved sense of health, with enjoyment being a key factor:

> Mel: So, tell me a little about the movement that we have just done?
> Angela: We did all sorts. It makes you feel good. Makes me feel good.
> Mel: Okay the moving?
> Angela: Yes, mmm.
> Mel: Do you know what it is that makes you feel good?
> Angela: (sighs and breathes)
> Mel: I know it's hard to describe.
> Angela: Something to do with your breathing. Yeah, going through your body. You're breathing well. You don't make yourself out of breath. You just enjoy it.

5.6 Body-mind connection.

John Argue maintains that developing skills of bodily awareness, or conscious movement, enhances mobility, thereby reducing falls risk in the Parkinson's population, with Houston and McGill, (2011) agreeing that falls are prevented when people with Parkinson's become more bodily aware at any given moment. In conversation with Martha Eddy (2016), Leventhal identifies that it is important for dance artists to understand how they can support movement awareness in people with Parkinson's. As suggested by Eddy (2016), framing movement through Laban's Effort principles, the dance artist can give feedback to support movement development or growth in participants with Parkinson's.

Similarly, Houston and McGill (2011) identified that by the end of the ballet project at ENB, many participants with Parkinson's could 'distinguish between various dynamics in movement, change their stance and some could alter their posture'. This general increase in body awareness supported movement and possibly movement confidence in research participants. Furthermore, learning how to do specific movement actions also added to people's awareness, with one participant reflecting that 'I'm using the stick less and less now in the last few weeks. Only to get up from the chair I've learnt nose over toes'. (Houston & McGill,2011:20).

Eddy (2016) explains that for populations with a chronic or long-term condition like Parkinson's, moving with attention, or filtering sensory information in the act of dancing needs to happen slowly, and for short periods of time to avoid exhaustion. Otherwise, the movement process would be counter intuitive as a support to health. Somatic awareness needs to be carefully directed by the practitioner, combining sensory explorations, or isolating specific ones.

Argue contends that for people with Parkinson's, focusing on movement awareness reaffirms body-mind connection, so that movement is not distracted by other thoughts or feelings and remains focused on actions in the present moment. The primacy of such practice is illustrated by the fact that Argue begins each session with mindful movement exercises which also support dexterity in people's hands. One significant series of movements employ tennis balls. Here, attending to the tennis ball, enables people to be distracted from thinking about movement difficulties. For people with Parkinson's, holding and feeling the movement of the tennis ball in their hands

stimulates proprioception through haptic sensing. Providing important sensory-motor feedback, this activity promotes body-mind connection and enhances people's movement execution. The following is my own description of one of Argue's tennis ball routines which happens at the beginning of every class:

> Each participant receives a tennis ball, which is bounced towards them. At this point, participants are faced with two instructions:
>
> 1. If you miss or drop the ball, do not run after it.
> 2. Laugh at all of John's jokes!
>
> Participants then follow a series of movements which are only made possible by focusing their attention, or mind, on the hand that is manipulating the ball. In the moments that follow, participants with Parkinson's manage to complete (perhaps with some errors along the way) complicated and difficult movement tasks with a tennis ball. The following example illustrates this point:
>
> *One hand is held above and over the other. (Distance between the hands is chosen by each participant). The ball is dropped from one hand to another, and then the hands change place and the activity recommences. After a while, the same activity is performed with eyes closed. Amazingly, and for the majority of the time, the balls are caught. This is despite tremor (which often dissipates), or balance issues.*
>
> The process is successful because participants truly focus, or attend to, their felt experience of moving. They notice the relationship of their hands in space, the weight of the ball, the felt sensation as it lands in the palm of their hand. In this way, participants experience an event where the mind and body are connected or integrated. They move accurately, and with confidence. They have Parkinson's.

In my research, Bob attributed his improved balance to having an internal and felt awareness of his alignment:

> Bob: But, in the last two years. I've learned a lot about inside me and how it works in relation to movement.
> Mel: And do you think that it's helped you then?
> Bob: It has, yes.

Mel: What has it helped?
Bob: Well, it's helped my balance.
Mel: Right.
Bob: Apart from the last couple of days, but that's a one-off (Bob's been feeling ill). Because if I can be more upright, I'm better balanced.
Mel: Umm, and so having an internal sense…..
Bob: ..of being upright
Mel and Bob: Helps you to be better balanced.
Mel: Ah right. That's useful.
Bob: I think that if I hadn't been sorted out inside as well as I have been through me head, I'd have been less mobile and less able to walk as far as I do.
Mel: Ah, okay thank you.

I have illustrated how in one to one somatically informed Dance and Parkinson's practice participants can achieve a sense of connection and re-connection. Participants were able to reflect on their felt experiences of dancing. As the research progressed, I became more adept at engaging people in conversations about their sensed and felt dance experience. To begin with, I had tried asking research participants how they were feeling or what they noticed after specific dance sequences. Most responded with statements such as 'I feel fine' or 'nothing really', or 'everything's okay'. Attempting a different approach, I spoke about what I noticed in myself during dance improvisations as a way of encouraging my partner with Parkinson's to do the same. Over time, research participants became more comfortable when talking about their felt experiences, indicating that they learned the new skills of noticing and becoming aware.

Finding bodily connection also supports movement confidence, self-efficacy, and agency. For people with Parkinson's, finding connection is a pre-requisite for experiencing the felt sense of flow, now explored.

Chapter Six

Flow

6.0 Introduction.

As a process of flow, dance has the potential to positively affect health perception in people with Parkinson's. I explore the different ways that research participants experience flow in one to one Dance and Parkinson's sessions. Contextualising their reflections, I begin by referring to discussions of flow in Dance and Parkinson's literature and examine the concept of flow through the works of the dance artist and theorist Rudolf Laban (1879-1958) and the Hungarian psychologist Mihaly Csikszentmihalyi, with their perspectives opening Chapter Six.

6.1 Flow: Rudolf Laban.

Central to all movement expression, the motion factor of flow creates a fluid relationship between a person's inner and outer-directed dance experience. When dancing, a continuous flow of sensory-motor information is felt in our bodies, with the dancer exploring different flow states by enacting movement through 'dynamic space' (Laban, 1966:93-94).

Laban's Effort descriptions identify a range of flow experiences. In 'successive flow', one body part follows another, a process which carries movement along, with Warren Lamb (1965), Laban's protege, identifying that flow was shaped by changes between body parts towards or away from each other. The whole body moving at the same time is described as 'simultaneous flow'. Whereas in free flow, a person maybe entirely

unimpeded through their movement and find difficulty in stopping their action, in the experience of bound flow, a person may be either tentative or confident, taking care or knowing exactly what they are doing. And so, movement flow can signify a dancer's different intentions and emotional states as well as describe their observed physicality.

People with Parkinson's experience a disturbance of flow (Eddy, 2018), often manifesting in extreme states of free or bound movement. 'Festination', from the Latin to hurry, is where a person with Parkinson's speeds up their everyday movement, such as walking, due to involuntary acceleration. On the other hand, the condition of Parkinson's may cause a person to 'freeze' and find difficulty in initiating or maintaining an action, with all experiencing a general slowing down or movement deceleration known as bradykinesia. People with Parkinson's live with muscle rigidity, or stiff and inflexible muscles which restrict their movement range or amplitude. Other symptoms are 'tremor' or uncontrollable movement in a specific body part such as a hand, 'dystonia' a prolonged muscle contraction or increased muscle tone where visible twisting or movement spasms create unusual posture, or 'dyskinesia', a rhythmic like contraction of large muscle groups often described as a rolling or writhing motion.

People with Parkinson's have identifiable movement qualities which can be externally observed Leventhal (2016). Using Laban's Effort descriptors Houston and McGill (2013: 19) documented that in Dance and Parkinson's classes at the ENB:

> all participants entered the class with a light-weight quality to their movement, irrespective of whether their flow of movement was bound or whether their use of space was direct or indirect. This lightness manifested itself in, for instance,

> a lack of bend in the knees whilst dancing, a hesitant or careful quality in movement, a walk that did not engage the heel in the movement lending it a floating quality.

As a result of taking part in ballet classes Houston and McGill (2013) reported that participants movement fluency increased, with one exercise being particularly effective for creating flow experience in people with Parkinson's as described in the following passage:

> One exercise in particular seemed to help with fluency, namely, walking from one corner of the studio to the other diagonally opposite in time with the Dance of the Knights music from Romeo & Juliet and in the manner of proud and angry Tybalt. With the strong pulse underlying the music, many participants lengthened their stride and tempered the pace of their walk in time to the music. In addition, some participants changed from walking with the same arm as leg forward, to contra-lateral movement. Participants were encouraged to look ahead, which straightened up bodies, many of which normally stooped. All of these factors combined initiated a coordinated, more fluent walk. (Houston and McGill, 2013:17).

In this class description Houston and McGill highlight that when combined with music, dance increases movement flow in participants with Parkinson's, a process which has the potential to increase both physical and psychological experience. Finding confidence in walking boldly across the dance floor might support movement confidence in other aspects of their lives. Exploring flow as a psychological experience, I turn to the works of Mihaly Csikszentmihalyi.

6.2 Flow: Mihaly Csikszentmihalyi.

Csikszentmihalyi (1990:8) defines flow as a 'subjective, mental state contributing to optimal experience, which is characterized by complete absorption in an activity at a

given moment in time'. The most significant aspect of flow is autotelic experience (Jackson, 1992), or the intrinsic enjoyment one has in doing an activity for its own sake (Csikszentmihalyi, 1990). Here, the term autotelic is derived from the Greek words 'auto' meaning self, and 'telos' for goal.

Csikszentmihalyi (1997: 111-113) identifies nine components of enjoyment which enhance flow. These are when:

1. An activity requires clear goals, where a person needs to know what has to be done.
2. There is immediate feedback to actions, in the sense that a person is aware of how well they are doing in the present moment.
3. There is a balance between challenges and skills so that a person's ability matches the activity to be performed.
4. Action and awareness are merged so that a person's consciousness is focused on what they are doing.
5. Distractions are excluded from consciousness so that a person focuses on an activity in the present moment, which relieves them from the usual fears that cause depression and anxiety.
6. There is no worry of failure, so that whilst someone is in flow, there is no fear of failure.
7. Self-consciousness disappears so that a person is too involved in an activity to protect their ego.

8. The sense of time becomes distorted because, in the flow process, a person will lose track of time.
9. The activity becomes autotelic, or enjoyable when most of the conditions listed previously are present.

Csikszentmihalyi's nine components illustrate how autotelic experience is promoted by finding enjoyment and absorption in an activity, with these conditions leading to enhanced flow experience. This process is particularly relevant to people with Parkinson's. When people with Parkinson's plan movement such as walking (whether this relates to walking as an everyday activity or as movement embedded in the dance experience) they need to be consciously aware of their movement goals and know how the act of walking might be initiated and carried out. Initiating and carrying out movement, people with Parkinson's will receive immediate feedback about how well they are performing the action of walking. They might find ease in their ability to walk, or alternatively discover that they are 'frozen' and unable to proceed. If the walking movement is straightforward, then it is more likely for people with Parkinson's to achieve their desired goal of walking.

Exploring ways to focus their attention supports people with Parkinson's in the process of walking. Any distractions, including negative thoughts about being not being able to move, also affect the success of their movement execution. Once in flow, negative thinking about the inability to walk is temporarily put to one side, with the experience of walking becoming more enjoyable with each step. A research participant, Peggy, identifies her experience of flow when she explains that she

enjoyed dance when the focus was on the ‘coordination of arms and legs’, meaning that Peggy enjoyed the movement because she was in a flow experience. Another participant, Bob, shares an experience in which he loses his sense of flow:

> When I sort me arms out to scoop the air, in the movement, me right arm does it fully like yours. But the left arm tries to short-cut it. And, it doesn’t want to go out as far, so I’ve got to push it. Then I tend to go out of synch because I’m concentrating on making that arm do it properly.

Csikszentmihalyi’s nine components of flow can also be viewed through the lens of somatically informed dance practice. In somatic practices, the action and felt experience of dance are consciously considered. The movement experience is embodied and integrated into a person’s body schema. The felt experience of a specific movement supports self-awareness as internally connected action. Movement improvisations are guided by the body rather than clock time, with people beginning to move more slowly, to notice their felt experience, and have awareness. The dancer is actively engaged and absorbed in creating their own movements, with each person exploring new movement potential or novel coordination. Dancing in the present moment deflects external distractions so that in a cycle of action and reflection, the dancer perceives themselves in a process of flow as an internally mediated experience which brings enjoyment and satisfaction to the act of dancing.

In dance, enjoyment, leading to absorption and hence flow, is also experienced when an activity balances challenge against skill (Csikszentmihalyi, 2002) as in Contact Improvisation. Damasio (2003: 170-175) supports Csikszentmihalyi’s thinking and

links the achievement of autotelic experience with health. He contends that joyful states ‘signify optimal physiological coordination and smooth running of the operations of life. They are not only conducive to survival but also to survive with well-being’.

Dance may become enjoyable when movement confidence develops so that a perceived ‘helplessness turns into a feeling of control’ (Csikszentmihalyi, 2002:69). Aiming to prolong flow experience in students during improvisation classes, Elsa Urmston and James Hewison (2014) explored how they could support risk-taking as a measure of control. Their research revealed that confidence and pleasure in dance extended flow experience, with this experience increasing through incremental learning approaches. Urmston and Hewison employed movement ‘scaffolding’ as a constructivist teaching strategy, a stage by stage approach to learning, which included reflective feedback on bodily experience.

As in Urmston and Hewison’s study (2014), a scaffolding approach to movement may help to develop safe and enjoyable dance practice for people with Parkinson’s. When movement is broken down into smaller parts, or the coordination of different body parts builds incrementally, it may dissipate some of the challenges experienced from Parkinson’s motor symptoms. In this context, dance has potential as an autotelic experience (Csikszentmihalyi, 1990, 1997). John Argue’s (2000) use of movement visualisation is an example of one such scaffolding approach to dance and his practice is now explored.

6.3 John Argue: visualisations.

Movement visualisations help to support perception in people with Parkinson's because 'many of the same brain areas that are activated when a subject executes a movement are also activated when the subject imagines herself moving' (Gallagher, 2005: 50).

Visualisation techniques[88]specifically benefit movement and movement confidence in the Parkinson's population. Mentally visualizing movement is a form of 'embodied agency' (Gibbs, 2006: 224), 'embodied thinking' (Varela et al., 1991) and an extension beyond the self 'to others, the world, and beyond' (Warburton 2011: 65).

The word 'motor' suggests that the visualized mental image of action is moving within an individual's mind. In dance, the term 'motor imagery' is more explicit than the concept of 'mental imagery', since the motor imagery encompasses the process of mentally acting as if one is performing the imagined action (Jeannerod, 2006). In terms of movement visualisation, Akhter Ahsen (1982;1984) identifies three functional elements used in dance: the image itself, the somatic response, and the meaning of the image. In other words, movement imagery may hold personal meaning for an individual which is bodily felt. The movement visualisation express and generate further movement as a response to the initial image.

[88] Visualisation techniques developed by Mabel Elsworth Todd (1880 - 1956) became known as Ideokinesis

In the project Home Performance, using the image of a mountain to create a sense of balance, by informing the interrelated position of the head, shoulders, pelvis and feet, I invite participants to visualise their favourite mountain or name of a famous peak. We discuss the mountain's wide base, and spot height, comparing these to our feet placed apart as we sit in our chairs, with the head at the highest and most central point. The somatic response might be that it enables people to sense themselves rooted to the ground, balanced and more upright. The meaning of this image arises from the feeling of strength in this physical experience, or as the ability to enjoy life despite living with Parkinson's.

For Angela (B), this exercise brought back memories of being able to walk up a mountain before experiencing life with Parkinson's. Sharing this experience expressed her pain. However, it also created an opportunity for us to move closer to empathy and understanding. In the session, we continued by exploring movements that Angela could still perform. These acknowledged her movement potential, with our shared dance shifting Angela feelings of grief into the present moment of dancing.

Working one to one with people with Parkinson's Argue uses a scaffolding approach to movement, thereby echoing Urmston and Hewison's constructivist approach to movement teaching and learning (2014). His method involves estimating the number of steps between a start and end point of a journey. This process supports individuals to visualise the number of steps, imagine themselves walking the same steps, and then count steps aloud as they walk. For the Parkinson's population, the 'visual rhythm'[89]of

[89] Argue (2005:213).

counting aloud step numbers, helps to build movement confidence when walking, even when the number of estimated steps is incorrect.

Further to this walking process Argue suggests that clients find 'magic words' to support the action of walking. The words are 'magic', in the sense that they transform people's perception of walking, and hence their ability to walk. For example, Argue cites Marion's use of the word 'jaunty' when her steps become hesitant and shortened. When Marion uses the word 'jaunty' she: 'steps out then, heels coming down first, with a little bounce in each step; her arms swing in perfect coordination' (Argue, 2000). This action is quite a transformation 'it's as if she had never heard of Parkinson's. And she can keep it up pretty much indefinitely; perhaps because 'jaunty' truly suits her personality (ibid:209). Similarly, a participant from Quinn's class describes how:

> in the mornings, 'specially, I can barely walk, and one of the things that Pam's taught us is different ways of walking. So, I walk to the bathroom pretending I'm a lion…or pretending that I'm a giraffe or a horse. And so, I walk through the house pretending that I'm an animal just to get my legs to move (Sharon).[90]

The use of movement visualisation in Argue's work echoes the practice of Ideokinesis. In Ideokinesis, visualised motor imagery supports movement execution and enhances dance performance (Todd, 2008; Sweigard, 1978; Franklin, 2014). This is because, imagining the body in motion promotes: 'tacit processing of visual information about

[90] Sharon Reison is a dance participant at 'Dance for PD' classes. She is a member of the Brooklyn Parkinson's Group in New York.

the body's movement in relation to the environment' (Gallagher, 2005: 45). Beneficial health outcomes of this practice are enhanced movement confidence and self-esteem, enriched movement cues, refined alignment, greater flexibility, renewed creativity and expressivity, and improved mood (Franklin, 2014).

To a smaller or greater degree, all Dance and Parkinson's projects employ the use of imagery. Many have adopted the 'sun salutation' movement sequence derived from yoga. This movement motif is based on a series of visualisations. For instance, the image of a tall tower encourages people with Parkinson's to reach and join hands above their heads. The visualisation supports a sense of fluidity from one position to the next, a successive flow which creates markers or cues to direct movement.

The following extract from my one to one session with a research participant Bob illustrates how as a dance artist, I needed to build confidence in my partner in order to support his movement potential. In this respect, I used the 'scaffolding' technique where movement is deconstructed and then re-assembled. The following passage illustrates how we co-create practice, exchanging ideas in the home as a flow-based learning environment, a process which echoes Jean Lavé and Etienne Wenger's notion of communities of practice (1991) because we co-create dance as participatory process:

> Mel: So, let's try with just the legs (I realise that it was necessary to stop using our arms for a while until we had worked out Bob's difficulty in getting his legs to move one after another). So, it's harder for you to balance with the right foot in front?
> Bob: Yes

Mel: And is that because the back leg is supposed to be supporting you? (I work this out by observation and by sensing Bob's movement rhythm)
Bob: Yes
Mel: So, let's change legs and see how the other one feels (Bob now starts the movement sequence with his left leg in front so that he is more balanced, and from here, he can start to change legs continuously, finding flow as momentum. We continue to move for a while.).
Bob: It's much easier.
Mel: When you say easier, tell me a bit more about that.
Bob: Well, I don't concentrate as much on my balance. I can do my hands more freely because this right leg's gonna keep me upright.
Mel: Right ...and let's just change legs each time. (we continue to move). That's pretty smooth, how does it feel now?
Bob: Quite good, I'm not concentrating on moving my feet. But it's not a bad thing to concentrate.
Mel: And what are you thinking?
Bob: I think "move, move!"

However, it is often the case that for people with Parkinson's, skills developed in one dance session, might be lost almost immediately, during the next hour, within that day or over a period of a week. Movement needs to be constantly reinforced to maintain people's confidence and self-efficacy. Loss of movement may be due to the reduced effect of their Parkinson's medication which can initiative very slow or frozen movement and depletes executive function. It may also be that dance makes participants physically tired, but also mentally drained because they often need to consciously focus on executing movements. I became aware that participants needed to re-discover dance material in each consecutive session. Over the six weeks of one to one sessions, a body of work was co-created for each participant, allowing them to retrace and re-embody movement in order for people to feel confident when dancing.

One way of combatting over-thinking in dance sessions with people with Parkinson's is through the use of imaginary language, an area of exploration and expertise in somatically informed dance practices.

6.4 Language and flow

For people with Parkinson's, my language often supports movement initiation and directs participant attention to a felt and sensed experience of dance. Developing a real-time dialogue, and using movement imagery, I describe the dance process as it is happening in the present moment, allowing time for participants to engage with and notice their body in motion. I direct movement from the experience of how it feels in my own body, whilst simultaneously noticing how my partner moves or is unable to move, with my movement dialogue unplanned and emerging from an embodied place.

In the study, I use the following language to promote a shared exploration of weight. The pauses in the interview transcription, illustrate moments where we notice or become aware of our felt experience of dancing.

> Mel: Let's just notice our feet on the floor for a minute (pause). Maybe just move them about a little bit (pause). And perhaps if you're sitting right at the back of the chair, you can shift forwards a bit so that you can really feel the weight in your feet (pause). Finding the front of the toes or where the toes join the feet...so you can really feel that weight (pause). And similarly rocking back and moving the weight into the heels (pause). Let's go between these 2 places (pause)… lovely.

My image-based language also guides movement explorations, supporting felt and sensed experience in people with Parkinson's. This is the language of creation which

incorporates imagery into the dance process. In partnered dance, we discover how movement is exchanged between us through images which support an embodied and fluid sense of movement. These images support our dance in the present moment or assist movement recall in the future, with this approach now examined through two examples of dancing with Lynne, described in the following accounts:

> Lynne and I explore lateral swinging in standing as a means of experiencing movement flow. In the sequence, our body weight is poured through a plié in second, keeping the knees soft and allowing the arms to follow the movement of the torso rather than placing them in position after our rotation has started. In order for our arms to move fluidly, I remind Lynne of how our arms can hang loosely from our shoulder girdles, with our long bones reaching towards the ground, perhaps like tree roots spreading out into the soil.

> On another occasion, we discovered that a half turn can be successfully performed if our movement is also broken down in this way. In this sequence, Lynne begins by adopting an open and balanced stance with her feet slightly turned out. Movement impetus comes from transitioning her weight continuously from side to side with one arm joining in with the swinging motion. When Lynne is ready, this arm leads her movement upwards as she steps through to turn. Stepping is achieved by using the leg on the same side as the arm that travels upwards. Lynne's movement trajectory is stabilised when both feet return to the ground with her weight melting softly into the floor through her knees. Here, throwing a ball up into the air is the image used for the arm movement, an image which enables Lynne to stretch and look upwards. Now facing the opposite side of the room, Lynne continues swinging her arm from side to side, and so the movement continues or may shift into another sequence.

In both examples, Lynne's improvised dance is supported through imagery which helps her to embody movement. There is potential for Lynne to recall the felt sense of her dance on occasion, either in the dance session or during her activities of daily living. Important movement outcomes noticed in our session are then noted, since they have significance for other research participants.

Lynne found an improved sense of balance is experienced when she transitioned her weight fluidly from side to side, an action supported through VAC, where my felt sense of moving in the present moment supports my partner's embodied dance experience. For people with Parkinson's, lateral movement of this kind can be used as preparation for walking forwards, or for releasing frozen movement. This is because the action of pouring weight from side to side often initiates movement which is locked or stuck. The ability to transition movement sideways, without losing balance, also encourages greater movement amplitude so that individuals with Parkinson's can stretch for an object on a table or reach for a door frame when external support is needed.

In the second example from my one to one sessions Lynne is able to achieve movements that are normally difficult for people with Parkinson's to execute. Turning is often instigated by the person shuffling their feet round, which may create instability and feelings of inadequacy. Instead, Lynne was able to perform a half turn and continue moving. Unfortunately, Lynne's Parkinson's has progressed rapidly since 2017, and she is now unable to walk unaided. This illustrates the challenging and indomitable nature of Parkinson's. However, it is important to keep in mind that Lynne was joyful and determined when able to dance in standing at the time of the research, with the shared movement encounter improving her perceptions of health and quality of life for over two years.

The movement we discovered together has helped other people with Parkinson's in one to one and group classes, so that being able to support another person with the

same condition may be life-affirming. In my shared dance explorations with Lynne, I deduced that in one to one sessions, dance encourages a degree of agency and self-management in people with Parkinson's because as physical confidence improves, and different activities are explored, a cycle of improved health is established, with people's incentive to move often also improving as their confidence builds.

In this respect, dance has potential to support people's activities of daily living, enabling their lives to flow more easily. Dance supports their functional, everyday movement, as well as their confidence or self-belief in moving during the dance session. Leventhal agrees with this perspective. He explains that in the one to one context:

> [t]here's more of an attempt to connect to their personal lives. What they need in their daily lives. And although they don't always know what that is, they don't mention it to me, I have a sense of what that is, and I can notice in the session much more clearly that specific aspect. Whereas again in the group class I'm taking more of an aggregate.

Leventhal also confirms that for people with Parkinson's, reconnecting to self through one to one practice helps to alleviate self-doubt and reaffirms people's personhood. He cites the experience of a male participant whose self-doubt prevented him from attending a group class. One to one practice appeased his fear of failure, and in time, the participant felt confident enough to take part in a class. Leventhal shares how:

> part of my working with him was to try to reassure him that he would do well in the group class. He didn't want to fail in the class, even though we had reassured him that there was no such thing as failure (pause). It allowed him to

> go to the group class. That was a pretty big thing. He would not have gone otherwise.

In my own practice, when Bob shares that he had been “in a dark place” before starting to dance again, I understand that he has taken judgement and self-doubt out of the changing experience of his living body. Our shared dance experience has been central to this transformation, and therefore a significant element supporting his human potential.

Quinn also confers that in one to one work she encourages dance skills and ideas to transfer into everyday life as a means of supporting health for other people living with Parkinson’s. She comments that:

> you can help make them feel that dancing isn’t only relegated to the classroom. You can dance around your house. So, if you give them the experience of doing that, then the possibility of that being transferred is more likely. So that dance can be a part of their everyday life.

In the process of dancing together, humour is also a key factor in initiating and sustaining movement flow.

6.5 Flow, Humour, and improvisation.

In Home Performance, the expression of humour in dance improvisation focuses participants’ attention. It also develops a sense of flow between dancing partners. Humour positively affects health in people with Parkinson’s (Bega et al., 2017), with working memory, attention, and mental flexibility also implicated in humour

appreciation (Mensen et al., 2014; Thaler et al.,2012). Freud described some of the psychological benefits of relating to others through humour (Micozzi, 2001), with humour boosting emotions, reducing isolation, countering frustration, depression, and anxiety in people living with serious mental health (Gelkopf, 2011). Berk et al., (1989) indicate the benefits of humour to overall health, as well as cardiovascular and immune components, with Mobbs et al. (2003) identifying how humour and laughter trigger the brain's reward centers which assists movement motivation. Due to a lack of dopamine, people with Parkinson's often experience a loss of motivation which restricts their participation in different activities.

Founded in 1988, The Association for Applied Therapeutic Humour, defines therapeutic humour as 'any intervention that promotes health and wellness by stimulating a playful discovery, expression, or appreciation of the absurdity or incongruity of life's situation'. In Home Performance, humour creates a bond between dancing partners, with the comic interplay adding new layers of meaning to non-verbal encounters. Humour is often found in dance exchanges which involve objects such as fans and feather dusters. Laughter is shared when one partner makes an intentional movement 'mistake' which causes them to bump into their partner, who senses the inevitable collision coming. This happens when people sit side by side or when they follow each other around the room and then suddenly change direction, so that coming face to face, it is difficult not to laugh. Humour is found when performing famous dance moves, like those from Saturday Night Fever, or Morecambe and Wise's finale dance from their legendary television show.

The renowned physician, clown, and founder of the Gesundheit! Institute, Patch Adams uses the phrase ‘laughter is the best medicine’. He contends that laughter and joy are powerful and essential tools for supporting health, enabling us to connect to the person and ensure compassionate caregiving in the experience of illness. Goodwill (2005), indicates that Adams ideas are upheld by a number of research studies.[91] Like Adams, Paul Archer-Mayhew, a British writer, producer and script editor for the BBC, uses humour to connect with people with Parkinson’s and to share his own story of living with the Parkinson’s condition. Archer comments that ‘Parkinson’s shouldn’t be funny but it’s making me laugh’ (The Guardian, March 19th, 2019). One of the jokes that Archer shares in his touring show is that ‘People with Parkinson’s do get depressed but one of the other symptoms is apathy – so they may feel like killing themselves but just can’t be bothered’.

The next sections reveal how people with Parkinson’s experience sensory-motor flow in one to one Dance and Parkinson’s practice, with their reflections indicating their felt experiences of dancing. Flow is experienced through the themes of movement momentum, dance to musical grooves, dance and imagination, and dance in response to explorations of the fluid systems.

6.6 Momentum and flow.

In the act of dancing, the continuous ebb and flow of sensory information between the dancer and their environment create the possibility for change in the lived body. For people with Parkinson’s, embodying a sense of continuous motion, or momentum

[91] Refer to Burns 1996; Cogan, Cogan-Waltz and McCue 1987, as cited in Salovey.

supports movement potential, with momentum possibly replacing feelings of resistance and hesitancy, with ones of freedom and spontaneity, or flow.

The inquiry recognises that for some people with Parkinson's imbalance is a negative outcome of exploring movement momentum. An emphasis on continuous motion might exacerbate movement fatigue, increase tremor[92] or muscle innervation, and hence falls risk. John Argue (2000,18) contends that movement sequences need to find an element of completion to instill balance, with momentum a factor to be avoided (Argue, 2015). Instead, arriving at a place of stillness where movement is grounded or completed, before recommencing action, is an important safety feature. Argue maintains that focusing on power and ease in movements is more important than momentum, because 'power gets the job done' whereas 'ease relates to finding the easiest way possible' to move (Argue, 2015). Similar to Feldenkrais practice Argue is interested in finding movement which can be reversed at any moment, thereby making it the easiest, and hence safer way to move.

This research agrees with Argue's thinking, especially in relation to people living in later stages of Parkinson's, or where there are particularly marked balance issues perhaps as a result of significant dystonia. It also maintains that momentum is a useful tool when promoting flow as a positive health experience with newly diagnosed, early onset, or early to mid-stage Parkinson's. Movements which engage a swinging action, in which a person's weight transfers from side to side, or diagonally, supports movement momentum as flow.

[92] See Jill Bunce (2015).

Swinging motions can be delivered with safety when weight becomes part of the equation. When the swinging action is accompanied by weight transference, the experience of fluidity can be felt in individuals with Parkinson's. Weight transference is assisted by softening the knees and dropping the tail bone to release weight and pour movement from one side to another as if emptying viscous liquid between two vessels. Breaking movement into these separate parts enables people with Parkinson's to find the point at which their weight can be transferred through their legs to shift them side-wards, thereby providing a flow experience. Arms and pivoting movements maybe added when people become more confident with the first stage.

In the study, participants explored shifting their weight from side to side in seated and standing positions. Some relied on a chair or work surface to stabilise their action. Others were able to find weight transference easily by mirroring my own movement, or when I was positioned behind participants. Here, I guided movement with an element of touch so that participants felt secure in the movement process. Furthermore, transitioning weight was first explored as if in slow motion, to establish a sense of weight and connection to the ground. This gave the movement a similar pouring quality to movement visible in practices of Tai Chi.

Based on Lynne's reflections of dancing in the research, the extended example below illustrates how movement momentum supports flow, with other research participants, namely Bob, Anne, Adrian, Mick, and Bill also exploring this technique after Lynne and I had co-constructed this practice.

Lynne, a published author, attended my class ‘Moving, Dancing, and Relaxing’, during her involvement as a research participant. She was purposeful in seeking, out or experiencing at home, dance, and other movement sessions, such as Tai Chi and Qigong. As a Buddhist, she also practices ‘mindfulness’, a process for supporting self-awareness which enabled Lynne to feel a sense of ease and calm. The following passage from Lynne’s reflective writing reflects her flow experience in the process of dancing. It also highlights how as a dance artist my language guides the dance experience:

> Today there are six of us: all women, all in our sixties except for Mel. We begin by forming a circle, gradually opening out to give ourselves room to move. As the music starts, we swing our arms one way, and then the other. ‘Pour your weight from one side to the other’ encourages Mel. Tentatively I try it and surprisingly, manage to do it. The key, I think is in the instruction: *Pour your weight.* If she’d said, ‘Balance on one leg moving back and forth like a pendulum,’ I would have lost it because static balance is tricky when you’ve got Parkinson’s. But with the emphasis on an easy, liquid flow of energy I’m somehow enabled to stretch out and pour myself from one side to the other, tipping at a rakish 45-degree angle, moving from one leg to the other without wobbling or getting stuck.

This passage expresses the idea of continuous motion as a flow of energy from one place to another, or one moment to the next, slowly building momentum so that the experience of lateral movement in dance is achieved without fear of falling. As the session progressed, Lynne was able to find momentum by continuing to pour her weight from side to side whilst reaching outwards into space. This movement action was followed by scooping motions of the arms and hands which moved her energy inwards and creating a connection between the upper and lower body. Allowing

gravity to take over, Lynne moved earthward, returning momentarily to a state of balance before setting off again. This continuous movement sequence highlights the role of dance in enhancing Lynne's flow experience. It also reiterates Argue's (2000) reflections on grounding movement as a safety aspect in Dance and Parkinson's practice.

Lynne also wrote about how she enjoyed the feeling of momentum because it developed her movement range and consequent ability to turn. The following passage confirms movement momentum as an important factor in supporting Lynne's renewed sense of identity:

> Now we're swinging our arms in different directions, exploring space, taking up space, whirling about. Am I actually turning smoothly without falling flat on my face? Apparently so. Once again, if Mel had asked us to do any of this from a standing position I'd have wobbled like a run-down top. But the key, my body tells me, is *momentum*: not just to get moving but *to keep on moving*. I'm reminded of herons and other large water birds who have trouble taking off, but once airborne they're transformed into the graceful creatures they are. Not that I'm comparing myself - far from it - but simply being able to move in space for this hour and a half without getting stuck allows me to feel 'normal': alive, buoyant, joyful at being alive. Not defined by Parkinson's alone. A moving body; a body in motion.

At this stage, Lynne was still relatively mobile, having been diagnosed with Parkinson's for about four years. From Lynne's experience, I do not conclude that all people with Parkinson's would respond to a dance of this kind in a similar way. To begin with, Anne expressed difficulties in finding flow, noticing the differences between our movement as we danced together "You're more fluid with your movement than I am. And I can see that you're confident".

Lynne's experience of flow had been successful because she was shifting her weight from a stable base through her legs, into her spine and outwards through her arms. This motion allowed her to move gradually into space. Finally, she reversed the action of her arms, thereby returning her to a central place, and confirming Argue's reflections on finding ease in movement.

David Leventhal (2015), also asserts the importance of establishing flow through weight transference. He explains that for people with Parkinson's, maintaining a sense of fluidity is often easier to find in the carriage of the arms and torso during class. In contrast, the legs are important for weight distribution. In class, Leventhal uses 'ankles, knees, and hips, dynamically and buoyantly' allowing movement to shift people with Parkinson's 'from one experience to the next'. The importance of involving the legs in weight shifting is also supported by Viviana Diaz, a Feldenkrais practitioner working alongside John Argue in Oakland, California. In an interview, Viviana (April 2015) asserts that movement flow comes from people with Parkinson's:

> getting a sense of how their feet connect to the floor, and then how their legs connect with their hip joints, and how their hip joints are connected to their pelvis. In Feldenkrais you do this in a variety of ways: In sitting, you can do it lying down, you can do it standing, you can do it on all fours, you can do it on your side. So, there's a variety of positions, of making that connection, of making a connection to the pelvis and a connection to the spine that I think is a response to more stability, even if it doesn't last after the session for those more severely affected. It's as if it's waking up their sensory-motor system. So, letting them sense their limbs, and joints...the connection of the legs through the pelvis and into the back.

In standing, connecting the upper body with the movement of the legs can be challenging for people with Parkinson's. Anne reflects on the way her movement momentum was interrupted when taking her attention away from the upper body and arms to focus on her feet. Anne attempts to move across the floor were thwarted, causing imbalance. Anne's reflection offers important information for the dance practitioner who aims to support flow:

> Anne: Wiggling (arms) was okay on the spot, but when I tried to move (introducing legs) I stopped wiggling.
> Mel: The wiggle had gone?
> Anne: My brain wanted to wiggle more, but actually getting my feet (shows Mel her feet moving)...it was harder.

In this instance, Anne's difficulty was in trying to lift her feet whilst wiggling her body and arms. She was able to wiggle her upper body but would need to sit in a chair or lie on the floor to achieve wiggling movements in her legs and upper body at the same time.

However, Anne also had positive flow experience in one to one Dance and Parkinson's sessions. Witnessing Anne dance, I noticed how she explored her weight in the sagittal plane, releasing to the ground by using the weight of her arms and head to create movement momentum or flow:

> You went down, and you had this lovely swinging quality in your arms and I could feel the weight of your body drop down. I could really sense the weight, and when you lifted up, that felt really big in me. I could feel the 'swoosh'.

Angela (B), also discusses her experience of flow as momentum which gradually formed during patterns of repeated movement:

> Angela: Well sometimes I don't really know what to do and I feel a bit self-conscious, but once I've gone ahead and started to do it, it (the movement) just comes from somewhere.
> Mel: Mmm, the movement comes from somewhere, from you?
> Angela: Yes, I don't know what I'm going to do next really until we find a good one, and then we do it a few times.

All participants identified that repetition supported movement initiation as well as sustaining action, thereby echoing the findings from Heiberger et al's study (2011). People with Parkinson's enjoy movement repetition because they need time to process and then execute both learned and new movement. Repeating movement within a one to one session, and over several sessions, supports cognitive flow through continuity of ideas. Repetition increases enjoyment in the dance process, with Coaten (2009) also identifying that repetition supports embodied connections and relationships with people with Dementia.

6.7 Musical groove.

People with Parkinson's experience impaired internal timing due to decreased dopaminergic stimulation in the basal ganglia of the brain. This affects gait, so that walking speeds reduce, and more significantly, stride lengths decrease. As continuous flow or momentum, music supports walking or dancing because people with Parkinson's are able to pick up and use external sensory information such as musical beat (Bieńkiewicz & Craig, 2016).

Although ‘poor beat perception is present in patients with Parkinson’s as well as patients with focal basal ganglia lesions’ (Grahn & Brett, 2009; Schwartze et al 2011), a metronome or piece of music can regulate walking pattern and possibly more complex movement such as dance (Nombela et al., 2013). This is because the step rate improves when movement is synchronized or entrained to the temporal expectation of a regular beat, improving impaired internal timing (De Dreu et al., 2012; Thaut & Abiru, 2010).[93] For people with Parkinson’s, musical beat or groove supports movement continuity or movement momentum.

This idea is supported in ENB’s study of Dance and Parkinson’s classes. Here, enhanced movement fluidity is achieved when ‘participants have been walking to a strong rhythm or pulse’, with music acting as a ‘particularly important impetus when an individual is trying to initiate movement’ (Houston & McGill, 2015:19). In this study, some participants ‘were able to walk in time to the music, as strides lengthened and some coordinated arms and legs in contra-lateral movement’ (Houston & McGill, 2013: 112).

Influenced by variables such as volume, timbre, and pitch, ‘salience’ or beat perception can be explored through musical grooves (Nombela et al; Li-Am Leow, 2014). In people with Parkinson’s, attuning to a particular musical groove may improve gait and perhaps more general movement flow in dance sessions, with Aidin Ashoori et al.,(2015) agreeing that rhythmical auditory stimulation (RAS) which ‘adapts to patients’ movements may be more effective than rigid, fixed-tempo RAS

[93] See also Morris et al (1994b).

used in most studies'. Oliver Sacks explains the importance of matching music to individuals with Parkinson's, with the 'right' kind of music 'unique for each person'.

In the research, Peggy confirms this idea when she explains "It's the beat that helps movement. I'm lost without music. I can see it coming…getting there (the movement). Like layers...I need a couple of times to get it right. I need music". Similarly, Bill reflects that when he moves to music "I forget about everything. The music's in my head and the movement comes automatically...It's the beat isn't it?". On another occasion, he indicated that the "music is very good for relaxing". Anne comments that "if you do movements to the music, I'm far more likely to stick at it".

Through the research process, it became apparent that previously embodied dance movements were often more easily accessible than new ones, with music a key factor in regenerating past dance experiences. This is because musical rhythm may support people's movement even when they are physically and mentally compromised (Coaten, 2009). Adrian loved jiving to the music of Swing or Rock 'n' Roll. Although Adrian had profound dystonia on his left-hand side, which caused him to move involuntarily, once able to stand, he could jive fluidly to music. The music triggered an automatic response to Adrian's embodied experience of jiving. Similarly, even though Angela (D) found it very difficult to stand, once the Bay City Rollers music was on, her muscles seemed to relax, and Angela was able to find more fluid movement in her upper body and even turn very slowly on the spot.

‘High groove’ music, with strong underlying beats is more effective than ‘low groove music’ for improving beat perception (Leow et al., 2014; Hackney et al., 2015). Bill reflects on his shared dance experience at home to some Jackson Five music, revealing the importance of a strong beat or ‘high groove’:

> Mel: We did very well. You were bouncing about at the end!
> Bill: I know, what happened!?
> Mel: Do you often do that?!
> Bill: Yeah, When I’m dancing.
> Mel: When you’re dancing.
> Bill; Yes, to the rhythm.
> Mel: Yes okay, and then it all comes?
> Bill: Back...I’ve got to make sure I don’t do too much.
> Mel: Because you get worn out?
> Bill: I get carried away..I’ll need a sleep after that!
> Mel: You did amazingly, ‘cos your feet were all in time and you were bouncing about.
> Bill: It’s your teaching!
> Mel: No... it (the movement) suddenly sprung in there.
> Bill: It did, it just crept up on me.

Music is also integral to Bob’s love of dance. He explains that “You put it on, and then, well, it’s like winding up a mechanical toy. You put the music on, and then I’m away”. Furthermore, he shares that “I like the lively ones better”.

Bob continues by explaining that dance is about “moving your arms, you’re moving your legs, you’re twisting, and turning”. Bob finds that music inspires him to move, revealing that “If there’s nothing to inspire me to start moving, it would be difficult to dance”. The following reflective exchange between myself and Bob reveals more about his experience of dance and music.

> Mel: So, the body’s moving in lots of different dynamic ways?

> Bob: Yes, depending on the music. You can be quick or slow.
> Mel Yes, so it depends on your response to the music as well doesn't it?
> Bob: Well, you know me. Put African or Latin music on, and I'm twitching before you
> can start dancing. You've got to feel the music to dance Latin properly. And, if you don't feel it, then it's sort of contrived.

Furthermore, that "the music gets put on, and I automatically do it (the dancing), because I feel the music". Interestingly, Bob shares that:

> I think that I feel it better than I used to do. And, I think that's the way our one to one session goes, doesn't it? I just put on some music, and then you start moving, or I start moving, and then we sort of sink up with our movements. It's usually me that starts moving, and then Mel adapts what I'm doing'.

Exploring 'high groove' music is one way of enhancing gait and possibly more complex dance movement in people with Parkinson's. Once embodied, the beat of the music may continue in a person's consciousness even as auditory cues pause (Lerdahl & Jackendoff 1983; Nombela et al., 2013; Krumhansl, 1990). And so, momentum as flow experience is extended. However, Bill's experience of dance in the study also points to the fact that movement needs to be balanced by stillness or rest to avoid exhaustion.

Genre and an individual's beat preference might also be important factors for supporting movement momentum and hence flow in people with Parkinson's (Nombela et al., 2013). The research data upholds this thinking since participants with Parkinson's enjoyed a range of music, often associated with life before their condition.

Bob's movement responded to African polyrhythms, Angela (D) preferred dancing to disco music associated with her youth like the 'Bay City Rollers' or more contemporary Pop sounds such as 'All About the Base' by the American artist Meghan Trainor. Bill enjoyed Northern Soul tracks and those of Morecambe and Wise that reminded him of meeting his wife at a music event, and Peggy wanted to move to Rock 'n' Roll music with a predominant beat, since as a drummer, she supported her husband's guitar playing in local musical gigs and when sharing their music interest at home. When Peggy stopped drumming because of Parkinson's, it caused her much sadness, but she started learning the guitar instead. In one to one Dance and Parkinson's sessions at her home, Peggy enjoyed using her hands and small wooden sticks to beat out different rhythms against her legs.

Bill liked to improvise to his favourite music 'Positive Thinking' by Morecambe and Wise. This was a popular track with research participants because many of them lived in Morecambe, where a seafront bronze statue of the famous comedian Eric Morecambe resides. On these occasions, Bill moved with great fluency and travelled in different pathways across the room. It was as if his Parkinson's had disappeared momentarily. This phenomenon also happened with Peggy when we explored sideways swinging movements which shifted our arms and torso whilst seated, with our weight firmly placed over our feet. I had selected some African music with a strong beat, which Peggy enjoyed because as previously indicated, she was a drummer. We repeated the same actions for some time, and then, there seemed to be a moment of transformation when Peggy's arms softened and appeared to move without their normal rigidity. Both Peggy and I were surprised by this transformation, but the

movements helped Peggy to feel empowered and mentally positive. Peggy's experience also highlights how high groove music supported Peggy's movement (Nombela et al., 2013), with movement repetition sustaining her fluency of motion (Heiberger et al., 2011) and the value of dance as a kinaesthetic art form developing more deeply with repetition and time (Fraleigh, 2018). Of course, we had no way of knowing whether other factors, such as Peggy's Parkinson's medication, influenced this event.

Angela (B) describes how the beat of the music enables her to execute a favourite dance move, sharing that she was able to find flow in dancing to particular music, which gave her a sense of freedom and joy.

> Angela: We've got the twist to do yet.
> Mel: Maybe we need to use that Chubby Checker one?
> Angela: And then there's my favourite moves when I fling my arms up, I never actually did that as a teenager.
> Mel: Ah, you never did?
> Angela: No, because I was self-conscious, but since then, like now, since I was over 60, I like behaving like a teenager. When we play music, I'm able to enjoy the song more than when I was a teenager.
> Mel: Ah that's interesting, and let yourself move how you want to?
> Angela: Yes, well it's a bit crazy!

Angela's feelings of freedom and happiness expressed in the act of moving to high groove music support the idea that as body-mind flow, dance is intrinsic to supporting mental health in people with Parkinson's. This is because dance promotes a sense of joy, increasing people's movement engagement, and extending opportunities for the creation of new ideas.

6.8 Imagination and flow.

Leslie Stevenson (2003), identifies how imagination is 'the ability to think of something that is not presently perceived and yet is, was, or will be spatiotemporally real' (Beaney, 2005). Although imagination is a phenomenon set apart from ordinary sense perception, it still holds a consciousness of the actual spatiotemporal world (Beaney, ibid). Because images are not formed in the brain alone (Hunter, 2012), but stem from a moving engagement within the external, sensory environment, dance stimulates the perceptual arena or 'collective field of experience' (Abram, 1996). As a moving image, dance has the potential to flow through the body as a transpersonal experience (Chodorow, 1991; Hayes, 2013).

Promoting personal expression and agency through dance is at the center of practice for the ballet teacher Salosaari. Cited in Geraldine Morris's study (2008), Salosaari used movement imagery in classroom practice to promote agency and freedom for her ballet students. Salosaari found that 'when the dancers performed the same movements with different imagery, they produced new ways of moving' (Morris, 2008). Although pupils were attending to similar aspects of ballet technique, their personal contributions to practice could be viewed as an act of 'multiple embodiment' and a means of promoting creativity and agency within an inflexible regime of study. Imagery is also a fundamental tool in Dance and Parkinson's practice, creating an outlet for personal expression and supporting participants with Parkinson's to absorb and explore new movement. Supporting this perspective, Anna Halprin[94] (2013) contends that whilst dance connects us to physical experience, the movement of cells,

[94] Anna Halprin is the founder of the 'Life-Art' process at Tamalpa, Marin County, California.

blood, and breath, it also attunes us to the changing experience and expression of our lives. Like the dancer, people with Parkinson's may benefit from acquiring movement skills, finding self-expression through dance, and working in relationship with other dancers and choreographers.

Pamela Quinn (2014) explains that in Dance and Parkinson's practice 'the use of imagery is so much more effective than anatomical direction, because it comes from the whole body and the feeling of what you're supposed to do. It's so much more: It's complete'. Here, Quinn contends that giving flow to the imagination helps to steer us away from rational abstraction (Hayes, 2013) because the movement is embodied rather than externally perceived.

In a one to one Dance and Parkinson's session, Connie notices the beneficial impact on her posture and balance when moving within a felt and imagined movement landscape, and this is expressed in her wonder at moving. Perceiving her arms as sails on a yacht, she feels the front of her body expand. Then, transferring attention to the position of her legs, she experiences a synergy between the upper and lower body. In turn, this action supports Connie's lateral weight shift, an action captured in the following extract from my movement log:

> Today we played about with the image of boats. Our arms became sails to navigate our bodies, tilting us from side to side. We were starboard and port. Connie noticed how her legs shifted and changed position in response to the movement. She commented; "It's amazing how the upper and lower body is connected (2014).

Movement imagery allows Connie's attention to flow through her body. This action positively impacts Connie's feeling state. It moves her from feelings of despondency to delight. Dance with an awareness of weight supports a connection between body parts, leading to a sense of integration. Taking time to build movements by using the scaffolding techniques supports movement absorption, and subsequently increases movement awareness. The use of imagery is a more effective learning tool than instruction alone. For Connie, it was significant because she had been struggling to find a sense of balance. Later in this session, she was able to come to standing and experience stability for a short while.

Connie's movement emerged from a longer piece of dance created as an 'imaginal landscape' which enabled us to share movement experience as ideas flowed between us, with this phenomenon described by Peggy (2014) as 'your response into mine. David Leventhal (2017) also speaks about the importance of longer movement sequences emerging during his private teaching sessions in people's homes in New York:

> And so, what we do that's quite different from the group class is actually continuous motion for about, for that whole hour. I don't do a lot of stopping and explaining, I will give notes and comments, but I generally will do half an hour seated warm up, about ten minutes of supported work behind the chair, and then we'll move across the living room.
> He attributes 'long play' movement landscapes, developed in one to one sessions as having a significant impact on Dance for PD® classes explaining that:

> We kind of keep going. So, it's interesting because I think…. I've seen how much she's enjoyed that, and I've then brought that into the group class as well, um, so I think in general what I've done people have enjoyed it, that

> approach. I think it's taken them a little bit by surprise because they've got used to somewhat shorter modules that have formed the basis of our curriculum for a long time, but I think it's a wonderful way to er, to just maintain momentum, and maintain the focus people have when they're dancing.

Leventhal's reflections echo the idea of dance as movement flow. It also reiterates the significance of enjoyment as a health benefit when dance creates flow experience in people with Parkinson's.

Similarly, I have found that extended movement sequences which incorporate images of water-based environments are effective in this way. This is because as a metaphor, they represent fluidity in the living body. In Osteopathy, mimicking water through movement improvisation creates resonance with the fluid environment of our living body because allowing: 'the body to mimic the flowing, undulating, arced, and curving patterns often found in the movement of water creates fluid movement' in ourselves (Bonnie Gintis 2007: 20). In one to one Dance and Parkinson's practice, imaginal landscapes promote transformation in people with Parkinson's as they encounter new movement possibilities.

6.9 The fluid body.

In the practice of Body-Mind Centering (BMC), the fluid system supports transformation or change and flow in the living body. Flow underpins the human organism because all fluids: 'are predominantly water but change substance and quality by virtue of the membranes that they pass through' (Eddy 2006:87). In adults, at least 60 per cent of the body is made up of water. The process of fluid transportation

and transmutation begins and ends in the cell, since: ‘it is within the cell that life exists. All the other fluids in the body support the life system of the cells’ (Bainbridge Cohen, 1993:67)

Exploring the mind or quality of different the fluid movement plays ‘a major role in the overall counterbalancing of tension and relaxation, rest, and action’ (Bainbridge Cohen, 2012). Shifting feelings from a sense of physical or emotional tension to one of rest and relaxation may support positive health perception in people with Parkinson’s (Tufnell, 2017). Explorations of the cerebrospinal spinal fluid (CSF) supported feelings of relaxation in research participants.

Cerebrospinal fluid (CSF) is aligned to the nervous system. It flows slowly from the centre to the periphery of the body. CSF travels along the spine, between the tail and skull bones. It embodies a cyclical movement pattern in the cranial-sacral / coccygeal pump. Bainbridge Cohen (1993: 68), explains how attending to breath aids the movement of cerebrospinal fluid. The more fully you breathe, in both depth and rate, the greater the pressure difference between the abdomen and thorax. When pressure is higher in one part of the body than another, the breath moves from the area of highest to that of least pressure. The pressure gradient exerts a rhythmic pumping action on the veins and lymphatic vessels carrying the blood and lymph uphill through the body, with breath assisting the movement of cerebrospinal fluid.

In one to one Dance and Parkinson’s practice, research participants identified that moving with the mind of CSF supported feelings of relaxation and attention to internal

felt experience, thereby aligning with Cooper Albright's observation on 'the ability of somatic-informed dance to destabilise fixed sense of self' (Garrett Brown, 2007: 111). Attending to CSF, the body shifts from the sympathetic to the parasympathetic nervous system, enabling a release of tension and anxiety. A research participant Bill reflects on such an experience during our seated movement exploration. Whilst allowing our spines to undulate from side to side, we initiated gentle and wave-like movement in our arms:

> Bill: When we were doing the flowing movement, my back was more relaxed
> Mel: Your spine?
> Bill: My spine yes,
> Mel: Yes, I felt that too, 'cos we were just moving from side to side
> Bill: The flowing [motion] was soothing
> Mel: Soothing

Mirroring Daniel Leven's 'Shake Your Soul' practice,[95] I explored the mind or quality of other fluid elements in the body. The movement of blood through the arteries and veins creates a systemic flow or continuous fluid loop. In dance, continuous motion is reflected in movement which builds impetus or momentum, as in Lynne's experience of dancing mentioned earlier in this chapter. Here movement momentum found in the action of swinging or pulsing with the arms may enhance the experience of movement flow in people with Parkinson's. Bob's experience of arterial blood flow is captured in the following reflection:

> Today Bob really enjoyed moving from an awareness of the arterial flow. We used African music, echoing the rhythmic beat with pulsing hands pushing out

[95] www.leveninstitute.com.

> in front of him and into space. This helped him move forward with even gait, one step at a time, and travel steadily around the room. Bob likes moving this way. He likes bouncing from one foot to another and pushing his hands out in front of him in a similar motion. He does it every session.

The venous flow returns blood to the heart. The quality of venous flow is represented through movements which allow the body to rise and fall. Venous motion encourages a sense of expansion and contraction in the body. In the investigation, the use of venous flow is found when Lynne creates reaches outwards into space, making scooping movements with her arms and hands, before returning to a more stable base.

The motion of lymph does not rely on a central pump like the heart. Rather it moves through one-way valves, with muscle movement helping to propel it through lymphatic vessels. In BMC, the quality of lymph is associated with positive intention and direction. Ballet, Tango, or forms of Indian Dance embody such focused and directed movement and especially in the placement and carriage of the arms and head. In one to one Dance and Parkinson's practice, the movement quality of lymph supports directness and clarity, enabling people with Parkinson's to move into space with focused attention. Houston and McGill's study at the ENB revealed that researchers 'observed a more fluid sense of movement when participants are directing their focus and carrying out movement sequences with clear intention and purpose behind the actions' (Houston & McGill 2015:21).

The synovial fluid exists in the skeletal system of the body and is produced in the membranes of the joints, keeping them 'lubricated, separated, and nourished' (Bainbridge Cohen, 2012:80). For people with Parkinson's, explorations of synovial

fluid support enjoyment, with carefree, wiggling and shaking movement. Angela shares her movement experience after we had focused our attention on the skeletal frame and joints, expressing her enjoyment when exploring synovial flow:

> Angela: Mmm and all the joints that have been worked on, you can do anything with them for a few minutes, or as long as we're dancing.
> Mel: mmm when we're dancing. And then afterwards does that stop, that feeling?
> Angela: No, No... I mean it does, you get tired, when you've danced, when you sit down, well I do. You think: 'that was good,' 'I really enjoyed that, I really did'.

Gathering and examining participant experiences of dancing, illustrates the benefits of exploring one to one somatically informed dance practice with people with Parkinson's. Chapter Seven brings these together in a new framework of one to one Dance and Parkinson's practice, with my final chapter also bringing the different elements of my research together.

Chapter Seven

Conclusions

7.0 Introduction.

My project ‘Home Performance’ offers a unique insight into one to one, co-created, and somatically informed Dance and Parkinson’s practice. A process of non-verbal embodied knowledge production, my study has created a new framework of one to one Dance and Parkinson’s practice, later presented.

A key aim of my research was to understand how somatically informed dance practice supports health and changes perspectives in people with Parkinson’s. As research practitioner my purpose was to develop my one to one Dance and Parkinson’s practice so that I could provide a safe and beneficial dance experience for participants. The research process enabled me to further my knowledge and understanding of dance in a one to one context, so that I could work with greater awareness with people with Parkinson’s.

My research has catalytic validity (Lather, 1991). Its story and outcomes reveal the transformational potential of one to one somatically informed Dance and Parkinson’s practice, both for the researcher and research participants, with my study possibly influencing other practitioner’s or researcher’s thinking so that they engage in similar explorations.

My investigation identified that one to one Dance and Parkinson's practice is person-centred. Empathy was supported because I attended to each person's need in their experience of living with Parkinson's. In response to my dancing partners, I was motivated to draw on a range of skills, ideas, and dance practices. A somatically informed dance artist, I embraced the principles of community dance, the ideas of the arts in community health, the body of work from Somatics, and key elements underpinning the practices of Dance Movement Psychotherapists.

Working across these distinct, but often overlapping fields of study, my inquiry illustrates the flexibility and diversity of one to one practice, with the dance artist feeling their way through each one to one session. Although there is still information to be gathered about the benefits of dancing for people with Parkinson's, the ideas of Somatic theorists and artists/researchers in dance and Dance Movement Psychotherapy, as well as current thinking from neuroscience referenced in my inquiry, help to illustrate how dance supports health in the Parkinson's population.

My study connected to the wider body of work from the developing field of Dance and Parkinson's, including Christina Soriano's Action research project and my comparative analysis with the works of John Argue, Pamela Quinn, and David Leventhal. Since there are no other investigations exploring one to one Dance and Parkinson's practice in the home, I was unable to make comparisons against similar research material, and so the experiences of other practitioners provided additional data for my inquiry. An important contribution to knowledge, my investigation invites dance artists, somatic educators and therapists, and dance movement psychotherapists

to adopt an open view to their practices with people with Parkinson's, with the aim of embracing multiple knowledge frameworks and practices.

Key features of my one to one inquiry are explorations of dance as sensed and felt experience and the primacy of embodied movement practice in research. My investigation highlights the significance of sensed and felt experiences of dancing as processes of non-verbal knowledge production, with the shared dance encounter in people's homes a means for examining intersubjectivity as an intra-active corporeal exchange.

Through my research I asked the questions:

1. How does somatically informed dance practice support health in people with Parkinson's?
2. As a process of change, how might somatically informed practice alter the perspectives of the dance artist and people living with Parkinson's?
3. As research practitioner, what can I learn about the relationship of dance to health through the creative process of 'Home Performance'?

In response to these questions, Chapter Three explored reasons why somatically informed dance practice supports health and shifts people's perspectives of living with Parkinson's. My investigation identified that dance supports health as a process of change, with positive effect to people's physical, cognitive, and emotional lives. Like McGill (2016), my study highlighted the multidimensional aspects of dance for people

with Parkinson's, with dance enhancing people's confidence, self-efficacy, and agency as well as their physical health.

Illustrating one to one Dance and Parkinson's practice as a practice of self-care and care for the other, my investigation also revealed how dance has the potential to change perceptions of supporting health in the community. It is possible that one to one Dance and Parkinson's practice could operate as a social prescribing initiative which values the artist and the art form of dance in their relationship with people with Parkinson's.

Chapter Four explored how shared dance practice supports change and health. In Chapters Five and Six, participants' dancing experiences revealed how dance supports health through processes of connection and flow which helped to shift their perceptions of living with Parkinson's however temporarily. The key themes of change, connection, flow, companionship, and care resound throughout my inquiry of one to one Dance and Parkinson's practice.

7.1 Key Themes: Change, Connection, Flow, Companionship, and Care.

My study of one to one Dance and Parkinson's practice researched the possible benefits of dance to health, with the potential to shift people's perceptions of living with Parkinson's. My investigation followed a post-positive and qualitative exploration which examined people's dancing experiences. An Action research project, 'Home Performance' is a living theory or self-study which explores the empathy fostering potential of one to one Dance and Parkinson's practice as a process

of self-care and care for others. Here, my focus was on the connective and fluid potential of one to one Dance and Parkinson's practice as a process of change and support in community health contexts.

My first research hypothesis was that the dance artist and people with Parkinson's are key to understanding the relationship between dance and health. Rather than imposing knowledge, my aim was to engage people with Parkinson's in the development of dance practice as equal partners. In my project Home Performance, shared and co-created dance practice enhanced empathy and understanding between the dance artist and people with Parkinson's. Our shared dancing relationships enabled me to develop a new framework of one to one Dance and Parkinson's practice. Since I blocked one to one sessions in groups of two or three, I was able to try out similar approaches to dance practice within these clusters to see whether participants experienced similar results from specific ways of working. And so, movement themes, ideas, and approaches formed overtime, with periods of reflection adding insight in between my practice with different clusters of participants.

Amongst a range of symptoms, people with Parkinson's have decreased proprioceptive awareness, loss of executive thinking, and rigidity. A second research hypothesis was that dance has potential to alleviate the felt sense of disconnection and rigidity experienced by people with Parkinson's. The shared dance process enabled research participants to notice and become aware of changes in their movement and thinking, with connective and fluid dance processes supporting their physical, cognitive, and emotional health.

In the moments of dancing and in reflection, participants shared their experiences of change. In the context of change, Shusterman (2008:35) reminds us that ‘our very being is a flux of becoming something else, which can be constructively construed in moral terms of self-improvement’. The concept of improving self may be viewed as a means of caring for the self, with dance acting as a process of change which promotes self-care for individuals with Parkinson’s and the wider Parkinson’s community.

I contend that for the person with Parkinson’s and the dance artist, one to one somatically informed dance practice is not merely a practice of self-care, but also one of care for the other. In one to one Dance and Parkinson’s practice, people with Parkinson’s valued my companionship and support through the act of dancing together. I also received support for my inquiry and day to day practice from the participants living with Parkinson’s. Although not often highlighted in my study, care was sometimes extended to family members as care givers. An area for future research and practice, one to one work might also support family members in their position as care giver for the person with Parkinson’s.

Dance promotes change and supports practices of care through new ways of perceiving. Dance encourages people with Parkinson’s to become self-aware and attentive, and as a result, discover alternative ways of responding to their health condition and their activities of daily living. Working with self-awareness is an equally important position for the dance artist, with consciousness of their internal perception, or interoceptive experience, a fundamental part of connecting with another person’s

emotions. The more aware dance artists are of their own internal experience, the more empathetic they are with other people.

Somatically informed one to one dance practice supports the dance artist to be sensitive to the needs of their partner and more capable of responding to them through the embodied dance encounter. Through their shared dance, the artist and research participant move closer towards an understanding of each other, with their dance open, supportive, and aimed at forming connection, communication, and care. I propose several areas in which one to one Dance and Parkinson's practice acts as a process of self-care and care for the other.

In companionship, dance supports relationship, connection, and a sense of belonging. Dancing together promotes joy, alters mood, and supports self-expression. Experiencing joy through shared dance practice creates a bond between dancing partners. For both partners, dance connects the body-mind and focuses attention on people's present moment experiences. Whereas the dance artist learns to notice and respond to the details of their partners movement and feeling state, the act of attention and awareness may be transferred into participants' activities of daily living as well as their dance. Dance supports self-efficacy, agency, and identity when people embody the perception of 'I can' and 'I am'. Agency is achieved through relationship as well as being personally experienced. As a connective practice, dance supports bodily ease and relaxation. When the dance artist practices and embodies calmness, the person with Parkinson's is likely to respond in the same way. Spatially, dance opens up new movement possibilities and widens people's field of attention. In this context, it

supports the feeling of expanse rather than contraction, growth rather than reduction. In one to one Dance and Parkinson's practice, people grow together through shared dance practices, with this act leading to greater understanding, empathy, and compassion.

My thinking about self-care, and the process of developing care for the other through shared dance practice, is founded on my research findings which examine dance as a process of change. Dance supports changing perspectives in research participants, with potential to positively impact the lives with Parkinson's. Some of the elements indicated in my approach to care in one to one practice are also supported by other Dance and Parkinson's studies, so that our research findings connect, and a flow of thinking is also present in the work of practitioners and researchers in the developing field of study. I identify the following as areas in which my one to one investigation confers with wider Dance and Parkinson's research.

Hackney and Hackney and Earhart (2007, 2010a, 2010b), Volpe et al (2013) and Rocha et al (2017) identified dance as an enjoyable activity. Westbrook and McKibben (1989), Hashimoto et al (2015), Heiberger et al (2011), Houston and McGill (2013), and Jeong et al (2005) indicate that dance supports change. It alters people's mood, supports depression, and enhances their self-esteem. These elements lead to self-efficacy and confidence in people with Parkinson's (Heiberger et al, 2001) and support people's sense of agency and identity (Houston, 2019; Houston and McGill, 2011). As additional knowledge to Dance and Parkinson's research, I have identified that in a one to one context, agency develops through an intra-action between the dance artist

and people with Parkinson's. Like Foster et al. (2013), my study illustrates how dance promotes socialisation and participation, since the one to one process embodies the ideas of companionship and collective experience.

Houston (2019) identifies how the physical act of dancing supports bodily ease as it enables a feeling of 'looseness' in research participants. However, like McGill (2016) and Houston (2019) my inquiry indicates that when Dance and Parkinson's studies focus solely on the physical support of dance, they limit a wider understanding of dance as support to health in people with Parkinson's. Rather than adhering to dualistic perspectives of the body which separate physical and mental health, my project aligns with studies aiming to reveal the multidimensional aspects of dance to health in people with Parkinson's. This perspective has implications for funding and advocacy of Dance and Parkinson's projects, often seen as a way of exercising rather than a means of supporting people's overall health experience.

As with Heiberger et al (2011), Westheimer et al (2015), and Houston and McGill (2011), my study indicated fluctuations in the health of research participants. Echoing McRae et al (2018), my one to one practice identifies that improvements to physical functioning support other health improvements. Rather than as a consequence of improved movement, dance supports health because the person is connected as a physical, cognitive, emotional, and spiritual being, with dance affecting health in the whole person.

In my research methodology, I examined a Deleuzian informed feminist perspective of the dancing body. Through this lens, dance is a means of shifting, unfolding, and finding fluidity in movement, thinking, and feelings in relation to self and others. The dancer is engaged in a process of becoming, with the flow of dance providing a means to make themselves visible. My action research method allowed the embodied research data to emerge through a process of gradual construction, with the dance artist and people with Parkinson's co-creating and co-performing their research data as a process of performativity and embodied knowledge production.

In one to one Dance and Parkinson's practice, research participants are no longer fixed in their perceptions of living with Parkinson's. Rather the performative act of dancing together invites perceptions to change. The experiences and perspectives of people with Parkinson's change through a felt sense of their unfolding dance, their performative relationships with their dancing partner, and when connecting to their environment of sensation. In these ways, I concur that dance is a bio-psycho-social phenomenon which is also developmental.

In one to one Dance and Parkinson's practice, the dance artist and people with Parkinson's share an embodied connection through co-creative processes. Moving together, each person has a felt sense of the other's dance, and the other person. The cyclical act of sensing and feeling generates a flow encounter between dancing partners, which leads to empathy and understanding. Exploring the felt sense of movement supports body/mind connection and promotes awareness in people with

Parkinson's. The felt experience of dancing moderates their sense of disconnection, with touch-based practices aiding relaxation.

Heiberger et al (2011), report that as an exploration of felt sense, dance supports proprioception when it connects people to different objects such as the ballet barre. It also supports body feeling and everyday life competencies in this population. Opening people to a wider physical experience, dance has potential to affect perceptions, including how people manage their lives through creative responses. For instance, in my one to one inquiry, Lynne, a research participant, managed to move more easily around her kitchen when she installed small, round knobs on her worktop. When her movement was slow, or when her Parkinson's medication wore off, Lynne was able to move along more carefully. She made this home-alteration after we explored rolling slowly along the wall in her hallway during a one to one session, with this creative exploration encouraging Lynne to find her own responses to her activities of daily living.

In my research, connective and fluid engagement is not limited to the dancers themselves, rather they dance within an environment of sensation, with the intersubjective dance encounter an intra-active process. Rather than working in a dance studio or community center, one to one Dance and Parkinson's practice is explored in people's homes as safe spaces, with the home conducive to the one to one experience. Dancing in the home, participants with Parkinson's are comfortable and open to the research process. In one to one Dance and Parkinson's practice, the home itself and the objects within it, become an important component in supporting

connective and fluid creative processes. The home is transformed into a safe holding space as the participant prepares a particular room, or the dance artist assists in moving furniture and placing objects in specific locations. The dancers confirm the room as a safe holding space by beginning and ending dance sessions with co-created gestures as a movement ritual.

The home becomes a movement environment, with dance a bridge which connects people to objects inhabiting their house. Participants with Parkinson's intra-act with their home by meeting surfaces, and pushing away from them, or in the act of slowly rolling along walls. Chairs and walking frames are not merely objects to assist balance, rather they become part of an improvisation and a new discovery. Similarly, objects brought into the home are also incorporated into the dance practice. Feather dusters, balls, and fly swatters inform people's sensory world, with haptic connection stimulating people's sensory-motor pathways and providing important feedback as support to the movement/neural interface. In the one to one dance process, creative, rather than functional responses are made in relation to everyday objects in everyday life. Dancing in the home environment supports invention, and engagement with, rather than alienation from people's surroundings.

7.2 Supporting health and changing perspectives.

Dance and Parkinson's research has often focused on exploring Tango or ballet through quantitative and mixed-methods research. Other movement forms such as Irish set dancing and Contact Improvisation are also studied. I employed the artistry of dance through choreographed movement and improvisation, with my one to one

inquiry illustrating how the aesthetic engagement of dance connects to the person and supports their personhood. I aimed to understand how specific elements of dance supported health and changed perceptions in people with Parkinson's.

My investigation Home Performance presents key findings illustrating how specific elements of somatically informed dance practice benefit research participants with Parkinson's. A key element supporting movement, and hence movement confidence. was the ability to develop body/mind connection as a pathway to awareness. In my inquiry, people with Parkinson's had greater awareness when I acted as guide to their dance explorations through my connective presence. Focusing on the felt experience of movement was important. With proprioception diminished, people with Parkinson's need extra feedback and support to notice and feel movement. There is a delayed or interrupted movement response, with actions often unachievable. Perhaps movement is performed without fluidity with a sense of disorganisation and disturbance. Research participants illustrated that connective dance practices helped them to re-engage with their felt sense of movement, with mind and body practices aiding re-integration.

One to one Dance and Parkinson's practice supports body/mind connection through the following practices:

1) Explorations which developed a sense of grounded connection and weight release.
2) Explorations which promoted whole body connectivity, including developmental movement patterns.

3) Connections to the home environment (walls, floor, chairs, tables, pictures, photos, carpet, lights).
4) Connection to hand-held objects (develops through haptic sense/felt experience of weight).
5) Exploration of kinetic chains using self-directed touch.
6) Explorations of Naval Radiation (self-directed or supported by the dance artist).
7) Bringing awareness to the connection between body and mind.
8) Finding connection by bringing attention to breath.
9) Connecting to self through rest and stillness.

The one to one dance process identified connective dance practice as a pre-requisite of flow. Without connection there is no flow. Lacking spatial connection and expansive movement, dance enables people with Parkinson's to explore their movement potential and new movement possibilities through kinaesthetic sensing. The somatically informed dance artist guides and supports movement to produce a sense of flow, with dance enabling people with Parkinson's to move into a wider space and a wider world. Rather than perceiving themselves as defined by their Parkinson's condition, the aesthetic experience of dance opens a creative space in which people can explore different ways of sensing, feeling, thinking, and moving.

Explored with research participants, the following elements of dance produce the felt experience of flow:

1) Enjoyment in dancing.
2) Movement visualisations/ imagery/ imagination.
3) Artist-led language which presents an imaginal landscape through Verbal Auditory Cueing.
4) Improvisation which incorporates props and humour.
5) Exploring movement momentum.
6) Exploring music and musical groove.
7) Exploring the fluid body through practices of BMC or Continuum.
8) Using scaffolding techniques to slowly build movement sequences.

7.3 Dealing with loss

As well as sharing positive experiences of their lives in one to one practice, research participants spoke of their physical and emotional pain associated with Parkinson's. Many participants experienced pain in their spines, shoulders, arms, feet, toes, fingers, and ankles. Although people may have had other underlying health conditions, my experience was that all research participants experienced physical pain due to their Parkinson's condition. Their emotional pain was often to do with loss. Some participants had lost close family members, or experienced other difficult events, with the possibility that trauma might induce worsening symptoms in people with Parkinson's, or even be an underlying factor in their Parkinson's presentation. All participants spoke of their loss at not being able to do activities that they used to enjoy, or loss at not being able to achieve new things, since both experiences added to their feeling of being stuck in a physical and emotional sense.

Through one to one Dance and Parkinson's practice, I was able to support people in their experience of pain and loss. Somatically informed touch-based practices allowed me to relieve pain in fixed and rigid muscles and to invite movement into places that were locked or immobile. In one to one Dance and Parkinson's practice, health is 'accessed in accepting that which is perceived as unable to be changed' (Eddy 1998, 2002b). The co-creative process of Home Performance is a process through which participants with Parkinson's may experience change if only in a small way, through a small dance, or for a moment which soon subsides. When there was little movement, people found small dances pleasurable and calming, with these explorations allowing them to re-connect to movement, enjoy moving, feel calm, and have more confidence in their ability to move and experience change.

Working with loss, I identified a method or pathway for supporting participants through difficult shared stories and life experiences. Ensuring that I held people in a 'good enough environment,' I drew on my experiences of witnessing in the Authentic movement process, in which I learned to reflect back the language and movement gestures of my partner through reflective dialogue and embodied dance responses. A calm and empathetic connection was also key, as was the act of coming back to our bodies for support through self-directed touch and breath. In this way, people came slowly into movement, with their loss acknowledged and heard, yet also having potential to shift their immediate experience and move with new awareness, thoughts, and feelings in supportive companionship.

Over the period of my inquiry, a number of research participants died, or their Parkinson's symptoms advanced. My sense of loss also needed to be held. As indicated in the body of my research, I was fortunate to belong to a very supportive Parkinson's UK in Lancaster, so that loss was cared for within this community. I also received some supervision from a friend who was a trained DMP and had other Dance and Parkinson's artists to share my experiences with through CPD events as well as through informal engagements. I advise supervision for anyone researching or practicing in a one to one context, with additional supervision for my own practice an area for development.

7.4 A framework of practice.

Bringing my research findings and ideas together, I propose a framework of one to one, somatically informed Dance and Parkinson's practice as presented in Table 2. Three main sections establish practice, with extra guidance indicated for the preparation and closing of sessions. Adopting a framework, I aim to avoid prescribing specific dance content. Instead, I seek to guide other practitioners. The key to using the framework, is to approach one to one Dance and Parkinson's practice as a person-centred inquiry, to create a safe environment in which the person feels held and accepted, and to respond to your partner with attention and empathy in the present moment.

Section one:

I aim to establish a relationship with people with Parkinson's. We often chat for a while at the beginning of sessions and I find an appropriate time to shift us into the

dance process. Sessions begin with an opening or welcome movement which establishes a boundary or holding space for our work. I might notice that a participant responds positively to specific movements and I aim to incorporate this in our welcoming section. In this way my dance practice is person-centred. I have found that participants like to start sessions in the same way, possibly because familiarity supports confidence and a sense of safety in the one to one process.

Dance practice begins with partners positioned face to face. Since I have identified that proprioceptive awareness diminishes in people with Parkinson's, focusing on visual interactions may help participants to connect with their own dance experience at the same time as watching me move. Here, the process of mirroring movement is important, with proximity to the person with Parkinson's enhancing our dance interactions. Mirroring also establishes equality in the dance process, with both parties experiencing the roles of leader or follower. In a different exploration, Matching movement enables the dance artist to embody the quality of their partner's dance, or the mind of their dance, as a means of forming connection.

Explorations may include self-directed touch. Here, haptic sensing promotes proprioceptive feedback. Participants may respond differently to these explorations. Some enjoy the slow and peaceful movement of their hand smoothly flowing over the surface of their face, arms, or legs. Others prefer tapping or patting movements in time to the music, with many enjoying the use of props such as feather dusters as a less intrusive personal connection. Self-directed touch supports movement initiation by mapping the kinetic chains of the body. Another way of doing this would be to use

body scans, as in somatic or meditation practice, but these do not often include touch.

Another way of connecting the body and mind is to explore the breath in stillness and movement, with a range of somatic practices offering guided or personal breath meditations. The use of breath also supports body-mind connection and aids relaxation. Connecting to their breath, participants may experience clearer thinking, because consciously noticing breath reduces stress and anxiety.

In Section one, participants are encouraged to begin sensing into space, perhaps initiating movement from a static place and exploring different ways to connect to the ebb and flow of movement towards and away from the body center, with lateral swinging, or weight transitioning increasing movement momentum.

Props open space for humour and enjoyable interaction between partners. They often provide a route into dance improvisation, especially when participants are new to the one to one process or lack movement confidence. Improvisation supports participants to focus their attention in the present moment experience of dancing. In my research, one participant known as Bob indicated that dance improvisations improved his movement coordination because he was able to focus his mind rather than being distracted by his many ideas.

Section Two.

The dance artist may adopt a ‘scaffolding’ approach to learning in shared dance explorations. This may happen through dance as improvisation or through

choreographed dance material which aims to guide movement in people with Parkinson's, perhaps by supporting a larger range of movement, greater movement amplitude, or subtle changes in movement quality. A key aim is to direct the experience of integration in movement and thinking. This process may lead to a flow experience, with new knowledge developing incrementally.

With the dance artist, participants might explore grounded or whole-body connection and movement initiation. Flow experience may be supported through the 'scaffolding' approach because constructed in stages, movements eventually begin to flow. Partners may attend to challenging movement actions such as turning or balance. They may need to break these actions down into smaller parts before re-experiencing movement in its fluid form. This process of deconstruction and reconstruction is key to supporting physical and cognitive improvements in the dance process. However, the scaffolding approach is not always required since dance might emerge as a spontaneous act through personal movement expression.

Perhaps using touch, the dance artist guides their partner with Parkinson's, bringing awareness to their moving bodies. This relationship may involve negotiation, through words and movement, with the dance artist attending and attuning closely to their partner's shifting bodily experience through the process of mutual witnessing.

Embedded in the dance artist's movement language, visual imagery may support the flow of the dance. Other techniques such as movement visualisations also support the internal or felt experience of dance with people with Parkinson's.

In one to one Dance and Parkinson's practice, the home environment is viewed as a place to experience movement and stillness, sound, and silence, with 'a choice to pay attention to the world of sensation' (Fraleigh, 2018). Participants are encouraged to interact with their environment, using walls, floors, and furniture to engage in sensory-motor feedback, with these explorations supporting proprioceptive awareness. Adding to their environment of sound, high groove music may promote movement repetition or be used as a stimulus to support continuous movements, with Tai Chi like music identified as beneficial to this process because it creates a fluid auditory background for movement responses.

Section Three.

The moving dyad may return to previously explored dances or familiar ones which reconnect partners through enjoyable, shared dance experiences. Nothing new is introduced at this stage, with the focus on working towards rest and relaxation. The different elements of dance practice described so far may appear in Section Three, with the dance artist responding to the request of their partner with Parkinson's. As in other somatic dance classes, finding constructive rest helps to integrate the dance experience and maybe one of the most important stages. I end sessions in a positive way to celebrate our connective engagement, with improvisations often involving humour. Below, Table 2 sets out the one to one dance process.

Table 2: Framework of one to one somatically informed Dance and Parkinson's practice.

Preparing for the session

The somatically informed dance artist:

Explore your own practices of self-care.

Before 1:1 practice, find a quiet moment to bring space and presence for the work to come. Decide to put aside personal issues and activities relating to your day, with the intention of returning to them later. Be on time. People will be expecting you to arrive, with the sessions fitting in to their daily routines and medication plans. On arrival, prepare for unexpected events, such as caregivers/family members who are anxious, tired, or upset. Similarly, participants might be feeling unwell, anxious, or have fallen in between your visits. Factor in time to have a conversation before and after sessions. Always check in with people to see whether they need to take their Parkinson's medication or require water during the session. Initial sessions might require a slightly longer time and you might wish to make a visit in advance, a phone call/email to discuss your practice. In the initial visit you can exchange important information and make a risk assessment.

The person with Parkinson's: May wish to choose a space to work in and set up the space. With limited mobility, this might not be possible for some participants, so you will need to assist. People with Parkinson's may wish to be reminded of the time and day of their session, so arrange a manageable way of doing this.

Section One: Welcome

Beginning the connection:

A movement gesture/metaphor to create a safe space or holding environment for the session. De-marks time and sets a boundary for practice. Gestures are co-created overtime. The practitioner works with presence, attunement, and attention to safeguard the participant through a 'good enough' holding environment.

Begin the session either seated or in standing with partners facing each other. Possible use of travelling.

Presence, Attention, Awareness, and Attunement. A body/mind approach:

Emphasis on a grounded and weighted starting position. Use of breath or movement to reinforce a body/mind connection and support the skills of noticing and attention in people with Parkinson's.

Movement exploration using self-directed touch to support sensed and felt experience in the dance process. Exploration of kinetic chains which map the body territory. Beginning to connect with the wider space. A sense of unfolding the body into space.

Artist-led dance sequence(s):

Creating movement patterns which bring attention to the upper/lower, right/left, cross-lateral patterns. Simple movement structures and movement repetition to support movement confidence.

Initial dance improvisation:

Shared dance improvisations through Mirroring and Mutual Witnessing which may be initiated or changed by either partner. Improvisations begin to support a flow experience by attending to movement momentum, dynamic movement, musical groove. Possible use of Props. Incorporate humour.

Music:

Music to initiate flow. Music which participants enjoy. Identify high or low groove music.

Section Two: Connection and Flow

Connection: Explore whole body connectivity including developmental movement patterns, movement initiation, naval radiation.

Explore the environment, the walls, floor, and objects within it.
Get on and off your chair. Lean on tables, or your partner. Push up against a wall. Connection to hand-held objects (develops through haptic sense/felt experience of weight).

Explore Matching. Use guidance through touch-based practice. Touch for directing posture, structural connection, or weight awareness.

Focus on a specific movement activity such as walking, rolling, turning, or balancing.

In seated positions **create 'small dances'** which may incorporate touch.

Create a 'Flow' experience through a 'scaffolding' approach or include sequences from group sessions. Focus on imaginal movement explorations using imagery, visualisations, and verbal auditory cueing (VAC) and music. Flow might be explored through movement momentum, music and musical groove, the fluid body through practices of BMC or Continuum.

Dancers can be standing alone or assisted. They may travel or explore a specific space. Move in and out of spaces. If possible, work on the floor.

Section Three: Salutation

Emphasis on bodily re-connection through self-directed touch.

Constructive Rest & Reflection

Connecting to breath.

Music for reconnection and relaxation

Shared Dance:
Mirroring or mutual witnessing to reaffirm connection in the one to one encounter.
Shared dance improvisation to end. Emphasis on mutual dance engagement with fun as a key element.
Seated or Standing. Partners facing each other. Possible use of travelling.
Possible use of Props
Incorporate humour.

Create a final closing gesture

Somatically informed dance artist: Engage in conversation to bring your partner back into their day. Check diaries for the next session.
Make notes of your session so that you can plan for the next one and remind yourself of key issues.
Arrange supervision sessions to support your practice and support self-care.

7.5 Ways Forward.

In the process of my research I have developed my thinking and practical application of one to one somatically informed and co-created dance for people with Parkinson's. I continue to evolve my practice with people with Parkinson's in their homes as Home Performance. This now includes exploring one to one practice through online video services such as Zoom and Skype.

I am particularly interested in developing practice in different environments as well as the home. I have explored one to one dance practice on the beach in Silverdale, Lancashire, with this location meaningful to my partner with Parkinson's since it was in the village where he lived in earlier life. I would like to continue one to one Dance and Parkinson's as explorations of meaningful places.

My one to one practice has influenced my group Dance and Parkinson's practice, which I often refer to as 'Connect and Flow' sessions. In group work, I explore many of the somatically informed dance practices and ideas gathered through my one to one investigation with people with Parkinson's in their homes. My ideas and practice are also taken into other areas of my practice, including sessions where I work with people with other neurological conditions. For instance, I work with two sisters who live with Muscular Dystrophy, with my previous one to one experience giving me confidence and expertise in this context. This practice is not identical to one to one dance and Parkinson's practice, since each neurological condition requires different responses and different ways of engaging with people through dance.

In future research, I would record more of my own reflections of the shared dance encounter since these directly illustrate the benefits of shared practice for both dancing partners. I also aim to explore in-depth supervision for my practice as a means to enhancing safeguarding. Supervision is increasingly seen as an essential element supporting safeguarding. Similar research would also benefit from including video or film recordings of one to one practice as a means of capturing the full potential of people's dancing experiences. In my inquiry, although there was a fair balance of gender, the ethnicity of all research participants would be described as 'White British', with ages ranging between 55 and 85. In future, it would be beneficial to explore a greater diversity of indicators such as age and ethnicity.

I recognise that my thesis is an interpretation of the one to one dance process, with my interpretations influencing the inquiry. In a double hermeneutic, I was trying to make sense of participant experiences who were also trying to understand the dance process for themselves. To support this aspect of my research, I returned to participant and practitioner transcriptions several times and listened to the voice recordings to help bring me back into the moments of moving with research participants.

7.6 Final perspective.

As a final perspective on my project Home Performance, I offer Bob's reflection on our one to one dance practice for people living with Parkinson's.

Overall, Bob enjoys dancing to music, even though he thinks that 'it might not be elegant sometimes'. He admits that our first one to one session was 'very strange, and

now I enjoy them'. This is because it was 'something I've never done before'. Unlike his experience of ballroom dancing, one to one Dance and Parkinson's practice is more 'instinctive' so that 'your mind interprets the music to the steps and movement'. Bob says that before I arrive to join him for our session 'I've worked out where I can put all of the furniture. It takes me about twenty minutes to move it all around, and I hoover the floor'. Bob asserts that 'I wouldn't want to stop now, definitely not, because I've got different things that I can get pleasure from now, that I couldn't before. 'Cos, I can't go walking anymore. I mean, twelve or fifteen miles was normal. I can't do that. I can't drive. I can't use a camera anymore, 'cos of the shakes. I can't ride a bike because my balance has gone. So, I've got to find something to compensate for that. So, I find that dancing's very enjoyable. Plus, we have a good laugh. I was in a dark place before, almost the darkest place I've been. But I'm not there anymore'.

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Research Practitioner Interviews:

David Leventhal, June 2014, Brooklyn, New York.
David Leventhal, 2017, Skype.
Pamela Quinn, June 2014, Manhattan, New York.
Pamela Quinn, 2017, Skype.
John Argue, 2015, Oakland California.
Dr. Martha Eddy, June 2014, Manhattan, New York.
Dr. Martha Eddy, 2018, Skype.
Mary Abrams, 2014, Manhattan, New York.
Sarah Marcus (Dance for PD), 2014, Brooklyn, New York.
Susan Weber (Berkeley Ballet Theatre), 2015, Oakland, California.

Interview at Dance for PD.

David Leventhal in conversation with Dr Martha Eddy, 2016.

Link to Bob's film: You Tube: Home Performance, Melanie Brierley.

Appendix 1.

PARTICIPANT CONSENT FORM (Practitioners)

Title of Research Project:
PhD research Melanie Brierley: Dance and Parkinson's

Brief Description of Research Project:

Melanie Brierley is a PhD research student from The University of Roehampton. She is also a practitioner and founder member of Dance for Parkinson's UK. Melanie will be carrying out research looking into people's perceptions of moving with Parkinson's.
From your perceptions about practice in the field, this research aims to identify those movements, ideas and processes which most benefit those living with Parkinson's disease.
Perceptions will be gathered through recorded interviews and diaries (not obligatory) on at least two separate occasions. The researcher would also like your consent to attend some of your classes and take notes during class. (Please see the Research Briefing Paper for detailed information).
Your participation in the research is warmly welcomed, but if you feel you'd rather not take part in something, even if you said 'yes' at the beginning, you do not have to. You may withdraw at any time.
The findings from the research conducted will be published as part of the PhD and in articles concerning this study. You have the right to remain anonymous within those publications, unless you would like to be credited. Your results from the interviews will also remain anonymous.

Principal Investigator Contact Details:

Melanie Brierley
26 Briery Bank
Arnside
Cumbria
LA5 0DY

Email: melliebeing@gmail.com
Telephone: 01524 760014

Please tick where appropriate:

I would like to take part in the interviews ☐

I am happy for the researcher to attend class and make some notes ☐

I am happy to have my reflections from classes documented as part of this research. ☐

I am happy to keep a diary of my experience of being a Dance and Parkinson's practitioner ☐

Consent Statement:

I agree to take part in this research, and am aware that I am free to withdraw at any point. I understand that the information I provide will be treated in confidence by the investigator and that my identity will be protected in the publication of any findings, unless I would like my name to be credited.

Name …….

Signature ……

Date ……

Please only sign below if, in addition, you would like to be known by either your first name or full name in any published research, rather than being anonymous

(please note that your results from any physical measurements or questionnaires will remain anonymous):

Name you would like to be known by….....

Signature….....

Date…….....

Please note: if you have a concern about any aspect of your participation or any other queries please raise this with the investigator. However, if you would like to contact an independent party please contact the Head of Department.

Head of Department Contact Details:
Mr. Toby Bennett
Head of Department
Department of Dance
Froebel College
University of Roehampton
Roehampton Lane
London
SW15 5PJ
Email: t.bennett@roehampton.ac.uk
Telephone: 020 8392 3671

Director of Studies Contact Details:
Dr. Emilyn Claid
Director of Studies
Department of dance
Froebel College
University of Roehampton
Roehampton Lane
London
SW15 5PJ
Email: emilyn.claid@roehampton.ac.uk
Telephone; 020 8392 3653

Appendix 2

PARTICIPANT CONSENT FORM (Practitioners)

Title of Research Project:
PhD research Melanie Brierley: Dance and Parkinson's

Brief Description of Research Project:

Melanie Brierley is a PhD research student from The University of Roehampton. She is also a practitioner and founder member of Dance for Parkinson's UK. Melanie will be carrying out research looking into people's perceptions of moving with Parkinson's.
From your perceptions about practice in the field, this research aims to identify those movements, ideas and processes which most benefit those living with Parkinson's disease.
Perceptions will be gathered through recorded interviews and diaries (not obligatory) on at least two separate occasions. The researcher would also like your consent to attend some of your classes and take notes during class. (Please see the Research Briefing Paper for detailed information).
Your participation in the research is warmly welcomed, but if you feel you'd rather not take part in something, even if you said 'yes' at the beginning, you do not have to. You may withdraw at any time.
The findings from the research conducted will be published as part of the PhD and in articles concerning this study. You have the right to remain anonymous within those publications, unless you would like to be credited. Your results from the interviews will also remain anonymous.

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Melanie Brierley
26 Briery Bank
Arnside
Cumbria

Email: melliebeing@gmail.com
Telephone: 01524 760014

LA5 0DY
Please tick where appropriate:

I would like to take part in the interviews ☐

I am happy for the researcher to attend class and make some notes ☐

I am happy to have my reflections from classes documented as part of this research. ☐

I am happy to keep a diary of my experience of being a Dance and Parkinson's practitioner ☐

Consent Statement:

I agree to take part in this research, and am aware that I am free to withdraw at any point. I understand that the information I provide will be treated in confidence by the investigator and that my identity will be protected in the publication of any findings, unless I would like my name to be credited.

Name …….

Signature ……

Date ……

Please only sign below if, in addition, you would like to be known by either your first name or full name in any published research, rather than being anonymous (please note that your results from any physical measurements or questionnaires will remain anonymous):

Name you would like to be known by.....

Signature.....

Date.....

Please note: if you have a concern about any aspect of your participation or any other queries please raise this with the investigator. However, if you would like to contact an independent party please contact the Head of Department.

Head of Department Contact Details:
Mr. Toby Bennett
Head of Department
Department of Dance
Froebel College
University of Roehampton
Roehampton Lane
London
SW15 5PJ
Email: t.bennett@roehampton.ac.uk
Telephone: 020 8392 3671

Director of Studies Contact Details:
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Department of dance
Froebel College
University of Roehampton
Roehampton Lane
London
SW15 5PJ
Email: emilyn.claid@roehampton.ac.uk
Telephone; 020 8392 3653

Appendix 3.

PhD Research by Melanie Brierley: *Dance and Parkinson's*

Research Briefing Paper 2 (Practitioners)

Melanie Brierley, from the Department of Dance at The University of Roehampton, will be carrying out research as part of a PhD study in to Dance and Parkinson's.

The aims of the research are:

- To gather your perceptions about being a Parkinson's practitioner, especially concerning your practice and pedagogy. I am also interested in finding out how you feel about doing this work.
- To gather perceptions of the moving process from participants, partners and carers who attend class.
- To identify which moving practices most benefit those living with Parkinson's
- To explain how and why dance might support movement for those living with Parkinson's
- To identify generic practice and pedagogy that can support 'best practice' in dance for Parkinson's classes

Research is by interview for approximately 40 minutes at a time. If possible, I would like to interview you at least twice during the first two years of the research. I would also like to take part in, and make notes during, some of your classes. I will use these notes to help inform my interview questions. I can interview you immediately after class or at another scheduled time. Interviews are usually recorded using a digital voice recorder and notes are taken by the researcher.

Your participation in the research is warmly welcomed, but if you feel you'd rather not take part in something, even if you said 'yes' at the beginning, you do not have to. You may withdraw at any time. After I have gathered and filtered through the data from this research, I intend to publish the results and my thoughts in a PhD and

academic journals. You may choose to stay anonymous in this study or decide to be mentioned by name.

If you have any further questions about this research please do not hesitate to contact Mel. Mel's email address is: melliebeing@gmail.com

Principal Investigator Contact Details:

Melanie Brierley
26 Briery Bank
Arnside
Cumbria
LA5 0DY
01524 760014

Appendix 4.

PhD Research by Melanie Brierley: *Dance and Parkinson's*

Research Briefing Paper 1 (Participants)

Melanie Brierley, from the Department of Dance at The University of Roehampton, will be carrying out research as part of a PhD study in to Dance and Parkinson's.

The aims of the research are:

- To gather your perceptions of dancing and what it means to you.
- To identify any benefits that you indicate when taking part in dance sessions.

Research in 1:1 sessions at home:

1. Creating movement together. You and Mel will work together to create moving / dancing sequences just to suit you. Mel will keep notes on what we have done.
2. Interviews during sessions (10 - 15 minutes), reflections, diaries: getting you to talk about how you move at home and anything you experience about dancing / moving in 1:1 sessions.

Your participation in the research is warmly welcomed, but if you feel you'd rather not take part in something, even if you said 'yes' at the beginning, you do not have to. You may withdraw at any time. If you don't take part in the research, you may still take part in the dance class. After I have gathered and filtered through the data from this research, I intend to publish the results and my thoughts in a PhD and academic journals. I will also let you know about the results from the research.

Interviews and Diaries

Interviews are usually recorded using a digital voice recorder and notes are taken by the researcher.

The diary is a really useful document to examine how you are talking about your experience of dancing. You may also wish to include how you are feeling when moving and what you notice about yourself. Often people say different things in the diary that they forget to say at interview. If you would like to keep a diary, you may write as much or as little as you want. You may type it, send it by email, hand write something, record it, or represent your thoughts as drawings. It would be useful if you could keep your diary for at least a term of classes. After this I could track your thoughts and ideas and come back to you regarding any key areas that you have highlighted.

Recording

A few sessions will be filmed in order to document your creative journey. If you do not want to take part in the filming, then I will omit you from the filming. In the future, parts of the film may be shown occasionally at conferences or at Universities to educate their students. If you do not want to appear in such presentations on film, I will make sure that you are not seen in any of the extracts used.

If you have any further questions about this research please do not hesitate to contact Mel or talk to her in class.
Mel's email address is: melliebeing@gmail.com

Principal Investigator Contact Details:
Melanie Brierley
26 Briery Bank
Arnside
Cumbria
LA5 0DY
01524 760014

Appendix 5: Example of transcription from a research participant.

PhD transcription Mel and Angela (B)

Mel: Can you tell me a little about what you have noticed from our movement we have just done?
Angela: We did all sorts. It makes you feel good. Makes me feel good.
Mel; Okay, the moving?
Angela Yes, mmm.
Mel: Do you know what it is that makes you feel good?
Angela: (sighs and breathes).
Mel: I know it's hard to describe.
Angela: Something to do with your breathing. Yeah going through your body. You're breathing well. You don't make yourself out of breath. You just enjoy it.
Mel: Mmm, so you can feel the breath and moving?
Angela: Mmm and all the joints that have been worked on, you can do anything with them for a few minutes, or as long as we're dancing
Mel: Mmm, when we're dancing. And then afterwards does that stop, that feeling?
Angela: No. No, I mean it does, you get tired, when you've danced, when you sit down, well I do. You think that was good, I really enjoyed that. I really did.
Mel: Yes, and you felt like you had moved?
Angela: Yes.
Mel: Okay, umm so what would you say would be other benefits you found from today's session at all?
Angela: Well, I haven't got the same aches and pains as before.
Mel: And you're pointing to your back now?
Angela: Yes, and I don't feel tired like I do some afternoons
Mel: Mmm.
Angela: I just feel like, well not like I used to do, but a bit better,
Mel: So less tired than when I first got here, for example?
Angela: Yes, and it does you good to move your whole body doesn't it?
Mel: Yes.
Angela: Which is what I tried to do.
Mel: what would wellbeing mean to you?
Angela: Well, trying as much as possible to not let having PD make me feel down and the wellbeing is making yourself get up and go.

Appendix 6 Example from a one to one session with a Research participant Bob.

PhD transcriptions Mel and Bob 18/03/2017

I was struggling to keep Bob focused today. He wanted very much to talk and was finding it difficult to concentrate, so I was trying to direct his attention to his movement as a way to focus the session. Bob talked most of the time when he was moving, and eventually I found out that he had almost fallen the previous evening, and this had really shaken Bob up.
Often when Bob nearly has fallen, he will share this information with me, but doesn't always tell Margaret, his wife, because he doesn't want her to worry or anyone else to know about it (the fall). I have come across this situation before and think that people are afraid of disclosing instances when their condition might be progressing because they are afraid of the reaction to this news or what it might mean for their life. I think there is a fear of being sent away from home or of having more medical intervention (not that this would necessarily happen to Bob at all, but there just seems to be an underlying fear).
I am aware for example that before people with PD go to the doctors or consultants that they practice the movement on which they are tested /examined (like walking forwards and backwards, touching fingers to thumbs and for people with suspected memory loss, they memorise their birthday dates, the name of the current prime minister etc). A couple of participants have also asked me to help them practice these activities. There is a lot of stigma associated with memory loss and people feel very upset when others are trying to identify them in this way.

Mel: Good afternoon (Mel and Bob bow to each other with hands together as in Yoga sequences). Oh, this is nice (music, Bob wanted to play his music CD today). Let's just have a little swing, I like your trousers, they look comfortable. Let's see if we can get the arms as big as possible, swinging them, that's good, phew, see if you can look at your hands as well, so that your whole body's turning,
Bob: Not so bad turning that far.
Mel: Yes, turn as far as you can.
Bob: That's a problem I have (turning). So, some nights if I have too many pillows, it doesn't do my neck any good. Some nights I can sleep with the one pillow and my neck's alright, the next night I'm breathing bad, so I have to put the other pillow back.
Mel: Did you say that your breathing's bad?
Bob: Sometimes.
Mel: Do you know why that is?
Bob: No, probably because my head's crunched.
(we start to move in a different way).
Mel: phooo phooo (I use a wind breath as I am dancing, because I can sense that Bob is a bit anxious today and I hope that he'll join in with me). Can you feel a sense of

your chest lifting? (Mel and Bob are moving quite slowly in standing). Just reach out to the side, so it's like a big, horizontal line, pointing as far out into the distance as you can and then let's find that middle bit (balanced position) with your arms out and let the knees soften a little bit and stretch up again . Just check yourself, are your arms about level?
Bob: No, they weren't (Mel and Bob laugh because one of Bob's arms was much higher than the other and Bob hadn't noticed).
Mel: Okay, so I know that (movement holding arms out to the side) hurts the arms after a while.
Bob: It just feels tense in my shoulders
Mel: So, let's take them down ...feel floppy as well, that's it, fantastic swinging there, nice and open. So, what we're going to do is shift one arm across the body, ……..(Movement)..you can even rest that other arm on the leg if it needs to rest somewhere….(noticing Bob's free arm shaking, the one most affected by PD). (Bob has previously explained that if he holds onto something or himself with his shaky hand, then often the tremor calms down).
Bob: I've got to be careful sometimes doing exercises like this. If me feet aren't in the right place I might fall over, I get unbalanced…
Mel: How does that feel now then? (Suggesting adjustments to Bob's alignment in his feet)
Bob: That's alright now.

Appendix 7: Some of my reflections after one to one practice with Bill and Adrian.

Mel's reflections on Bill and then Adrian 27th July 2016 (Recordings were made in my car immediately after the session).

It's the first time I've worked with Bill. Bill was charming and very easy to be with.
His wife went out, Helen, with the dog for a walk, so I met the dog Bob.
Bill says he's not coming to class because he feels he's not as bad as the others the others need more help. (A few months later, Helen told me that it was because he might feel claustrophobic in the room with lots of people).
Bill was a painter and decorator. He still does a bit of work now and again.
He did live in Spain, where a Spanish doctor first told him that he had PD and advised him to carry on working and doing stuff as long as he could. Not to give up.
So, I think Bill has followed this advice, he's done some Tai Kwon Do which is fantastic, umm, oh yes, he sometimes goes out dancing with his wife, he likes that, and he used to do Northern Soul dancing and was pretty good at dancing. I noticed when he was dancing to African music on his hip action was good and his swing was good.
So, hands are quite difficult to manipulate for Bill, both hands. His right side is the most affected by PD although he seemed to think that that side was stronger in some cases, like when we were doing the apple work, which was interesting.
His feet are very flexible still so he still has a heel to toe coordination pretty good and he was able to peel his toes off the floor and replace them using the ball of the foot which most people with PD can't do very well or not at all.
He said that he used to walk with his arm turned in and leaning forward so we could do some posture work, although his posture is pretty good for someone with PD.
Easy and open to talk to. Fab first session. Brilliant.

Mel and Adrian 27th July 2016
I've just been to see Adrian. Adrian said that after last Wednesday's session, by that Friday, he had a really bad dystonia, so he thinks that he'd overdone it because we did do quite a lot of standing up work and even Jiving (Adrian is quite excitable and wants to move very quickly when he gets into the movement). So, today I decided that we would slow things down, so we did all the apple work to begin with in a calm and relaxed way. We did quite a lot of mirroring. We did some footwork and we explored pushing feet and hands against the wall and tables for feedback, and it did seem that when Adrian used his left leg where symptoms of dystonia are quite obvious, this activity did seem to still the dystonia, so that's interesting. The dystonia gets worse when Adrian's at rest but when holding an object like the apple, or pushing against the wall, this helps to calm the stuttering movement a lot.
What really worked well was the hands where one of us led the other, with hands held together. We repeated this with one hand, then the other, and finally both hands at the same time. We did this in standing to slow music and then to Rapper's Delight. A got really carried away, and then all of a sudden, his feet started to move stepping into and

away from his body as we stretched out our arms together...and then he was tired. That was enough.

Appendix 8 Interview transcript with a practitioner, John Argue.
PhD Transcriptions John Argue Interview with Mel 23rd April 2015.

Mel: We're talking about 'The Art of Moving' and you're saying the first reason...

John Argue: No it's not the first reason it's just a reason, the first reason is that the insight that I developed and that Marian Broker, my first Parkinsonian, that we developed together, stated that when a person shifts into artistic thinking the brain restructures itself, and when you're functioning artistically, you're not only using the part of the brain that has PD, you're using mindfulness, you're using grace and you're using completion. So those three things make what you're doing, or make any art really, function in the brain. When you're doing that, you bypass what's going on in Parkinson's which is the confusion of the non-artistic, habitual movement, that's the part that's not working right. The notion that we came to is that virtually any art would work this way. Anytime that a person's moving mindfully and gracefully and completely that that would shift them into this more competent functioning and they would actually be able to move and so the issue became as, overall global issue, was to take people who may have had an art form at some time in their life but at this point that they should learn moving art, they should learn dance, or Tai Chi, or Yoga, or Acting, my skill being acting I used acting notions to create my programme. So, I taught them to become an actor and encouraged them to think of themselves much more often as actors and less often as people with Parkinson's. Er, so I was always doing skits, but not improvisation, improvisation was not what I was up to, I was teaching them instead the central skills of a stage actor which is consciousness of position, planning, rehearsing, and voice skills, a deliberateness and intentionality in everything and they did umm and you know I'd taught actors for 25 or 30 years by then so it was just a matter of transferring from teaching acting ,choosing those skills and those problems that would be most beneficial for those people with Parkinson's. For me that was dealing with symptoms. Two reasons for that; one, I could deal with symptoms ah I could structure my work so that it wasn't just open ended. Secondly because people needed the use of some of the skills that I was teaching, how to stand up from a chair, how to get up from a fall, how to roll over in bed.

Mel: In everyday life?

John Argue: In everyday life, that they would rehearse in everyday life. They would transfer from classroom into everyday life they would be reminded over and over again, because I wasn't going to take them onto the stage, I had to use everyday life as the play that they were rehearsing for so that got to be the way of going.
The other reason that I made sure that I got that onto the book was so that it (my practice) was not considered physical therapy (which could be measured). It was not evidence based, you know all that contraction that happens when you start having to prove everything and document and measure, so I didn't want measurement. The only measurement I wanted was improved quality of life, and the proof of that was that the students kept coming.

Mel: Yes

John Argue: I didn't need them to have an external review of my work, I had mature people. Completely competent in evaluating for themselves and their persistence was proof to me that the system worked. So that's the way it went.